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CHIRONOMIDS OF THE GENUS *BRYOPHAENOCLADIUS* THIENEMANN, 1934 (DIPTERA, CHIRONOMIDAE, ORTHOCLADIINAE) FROM THE RUSSIAN FAR EAST

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The male imagines of eight new species of *Bryophaenocladius* Thienemann (*B. auritus* **sp. n.**, *B. distinctus* **sp. n.**, *B. kobayashii* **sp. n.**, *B. korkishkoi* **sp. n.**, *B. lanceolatus* **sp. n.**, *B. moneronus* **sp. n.**, *B. piltunensis* **sp. n.** and *B. tshukoticus* **sp. n.**) from the Russian Far East are described and figured. The male imagines of three new for Palaearctic species, *B. flavoscutellatus* (Mall.), *B. psilacrus* Sæther, *B. subparallelus* (Mall.), and three new for Russian Far East species, *B. akiensis* (Sasa, Shimomura et Matsuo), *B. nitidicollis* (Goetgh.) and *B. vernalis* (Goetgh.), are briefly redescribed. A key to the male imagines of the Russian Far East is given.

KEY WORDS: Diptera, Chironomidae, *Bryophaenocladius*, new species, key, Russian Far East.

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По материалу с Дальнего Востока России приведены иллюстрированные описания имаго самцов восьми новых для науки видов рода *Bryophaenocladius* Thienamann (*B. auritus* **sp. n.**, *B. distinctus* **sp. n.**, *B. kobayashii* **sp. n.**, *B. korkishkoi* **sp. n.**, *B. lanceolatus* **sp. n.**, *B. moneronus* **sp. n.**, *B. piltunensis* **sp. n.** и *B. tshukoticus* **sp. n.**), а также краткое переописание трех новых видов для Палеарктики – *B. flavoscutellatus* (Mall.), *B. psilacrus* Sæther, *B. subparallelus* (Mall.), и трех новых

видов для Дальнего Востока России – *B. akiensis* (Sasa, Shimomura et Matsuo), *B. nitidicollis* (Goetgh.) и *B. vernalis* (Goetgh.). Для дальневосточных видов рода *Bryophaenocladius* дана определительная таблица по имаго самца.

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INTRODUCTION

The genus *Bryophaenocladius* Thienemann, 1934 includes about 40 species from the Palaearctic region (Sæther et al., 2000). In Russia before our investigation by male imagines were known seven species – *B. aestivus* (Brundin, 1947), *B. inconstans* (Brundin, 1947), *B. nidorum* (Edwards, 1929), *B. novosemliae* (Kieffer, 1922), *B. subvernalis* (Edwards, 1929), *B. tuberculatus* (Edwards, 1929) and *B. xanthogyne* (Edwards, 1929) (Shilova, 1976; Scherbina, 1989; Ashe & Cranston, 1990; Zelentzov & Shilova, 1996; Kuzmina et al., 2003; Shilova & Zelentzov, 2003). During the preparation the keys to chironomid fauna of the Russian Far East we studied material from Arctic and North parts of the Far East, Kurile and Sakhalin Islands, Amur River basin, Primorye Territory and discovered fifteen species, eight of them are new for science and described below. Other species briefly are redescribed by Far-Eastern material. A key to adults males of the genus *Bryophaenocladius* for the Russian Far East is given.

The morphological nomenclature follows O.A. Sæther (1980). Material at first was fixed by 70% ethanol, later mounted on slides following the procedure outlined by E.A. Makarchenko (1985).

Holotypes and paratypes of new species are deposited in the Institute of Biology and Soil Science, Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia (IBSS FEBRAS).

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DESCRIPTIONS OF SPECIES

***Bryophaenocladius akiensis* (Sasa, Shimomura et Matsuo, 1991)**
Figs 1–21

Okinawayusurika akiensis Sasa et al., 1991: 286.
Bryophaenocladius akiensis (Sasa, Shimomura et Matsuo, 1991): Yamamoto, 2004: 9.

MATERIAL. **Japan**: 9 ♂, Kawasaki Green Park, Kanagawa Pref., Japan, 20.IV 1989, light trap (leg. T. Kobayashi), 20.IV 1989, 13.IV 1990, 23.IV 1993, 8.IV 1994, 15.IV 1994, 22.IV 1994, light trap (leg. T. Kobayashi). **Russian Far East, Kurile Islands**: 1 ♂, Simushir Island, 18.VIII 1995 (leg. V. Teslenko); 9 ♂, Chirpoi Island, 23.VIII 1995 (leg. P. Oberg); 1 ♂, Urup Island, 26.VIII 1995 (leg. V. Teslenko). **Sakhalin Island**: 1 ♂, Uskovka River, Tym River basin, middle stream, 6-7.VIII 2001, light trap (leg. E. Makarchenko); 15 ♂, Piltun River, North East part of Sakhalin Island, 17.VIII 2001 (leg. T. Tiunova); 1 ♂, Val River, North part of Sakhalin, 27.VIII 2001 (leg. T. Tiunova); 12 ♂, Tym River, low stream, about 12 km from

Nogliki Village, 31.VII 2002, light trap (leg. E. Makarchenko). **Moneron Island**: 1 ♂, unnamed stream, Chuprov Bay, Sakhalin Territory, 23-24.VII 2004, Malaise trap (leg. E. Makarchenko). **Okhotsk Sea coast of Magadan region**: 2 ♂, Chelomdzha River, basin of Taui River, 14.VII 2001 (leg. S. Kocharina); 6 ♂, Kava River, basin of Taui River, 30.VII 2001 (leg. S. Kocharina). **Amur River basin**: 8 ♂, unnamed stream of Urgal River basin, Khabarovsk Territory, 13.VII 2003 (leg. V. Teslenko); 2 ♂, Zeya River nearest of Krasnoyarovo Village, 24.VI 2004 (leg. T. Tiunova). **Primorye Territory**: 1 ♂, unnamed stream nearest of Kievka Village, Lazovsky district, 26.V 2004 (leg. E. Makarchenko); 2 ♂, Zabolochennaya River, Sikhote-Alin Nature Reserve, Ternei district, 22.VII 2004 (leg. O. Zorina); 8 ♂, the same place as previous, Blagodatnoe Lake, 6.VIII 2004 (leg. O. Zorina).

MALE IMAGO (n =14, except when otherwise stated).

Total length 2.1–2.9, 2.48 mm. Wing length 1.44–2.2, 1.79 mm. Total length/wing length 1.25–1.59, 1.44. Coloration brown or dark brown.

Head. Temporal setae 3–11, 8 (9); including 2–8, 5 verticals and 1–3, 2 postorbitals. Clypeus with 4–14, 9 setae. Palpomere length (μm): 26–36, 31 : 36–56, 48 : 112–176, 129 : 88–136, 109 : 96–148, 121. AR 1.02–1.84, 1.29 (n=21)

Thorax. Antepronotum with 1–7, 5 (n=8) lateral setae. Acrostichals 8–18, 14; dorsocentrals 10–24, 16; prealars 4–9, 4; supraalars 0–1, 1. Scutellum with 8–13, 10 setae.

Wing. Anal lobe reduced. Squama with 0–8, 4 setae. R and R_1 with 11–29, 16 setae, R_{4+5} with 0–2 setae. Costal extension 36–104, 77 μm.

Legs. BR_1 2.2, BR_2 2.8, BR_3 4.2. Spur of front tibia 44 μm. Both spurs of middle tibia 24 μm long, of hind tibia 40 μm and 24 μm. Middle tibia with comb of 3–5, 4 spines. Hind tibial comb with 11setae.

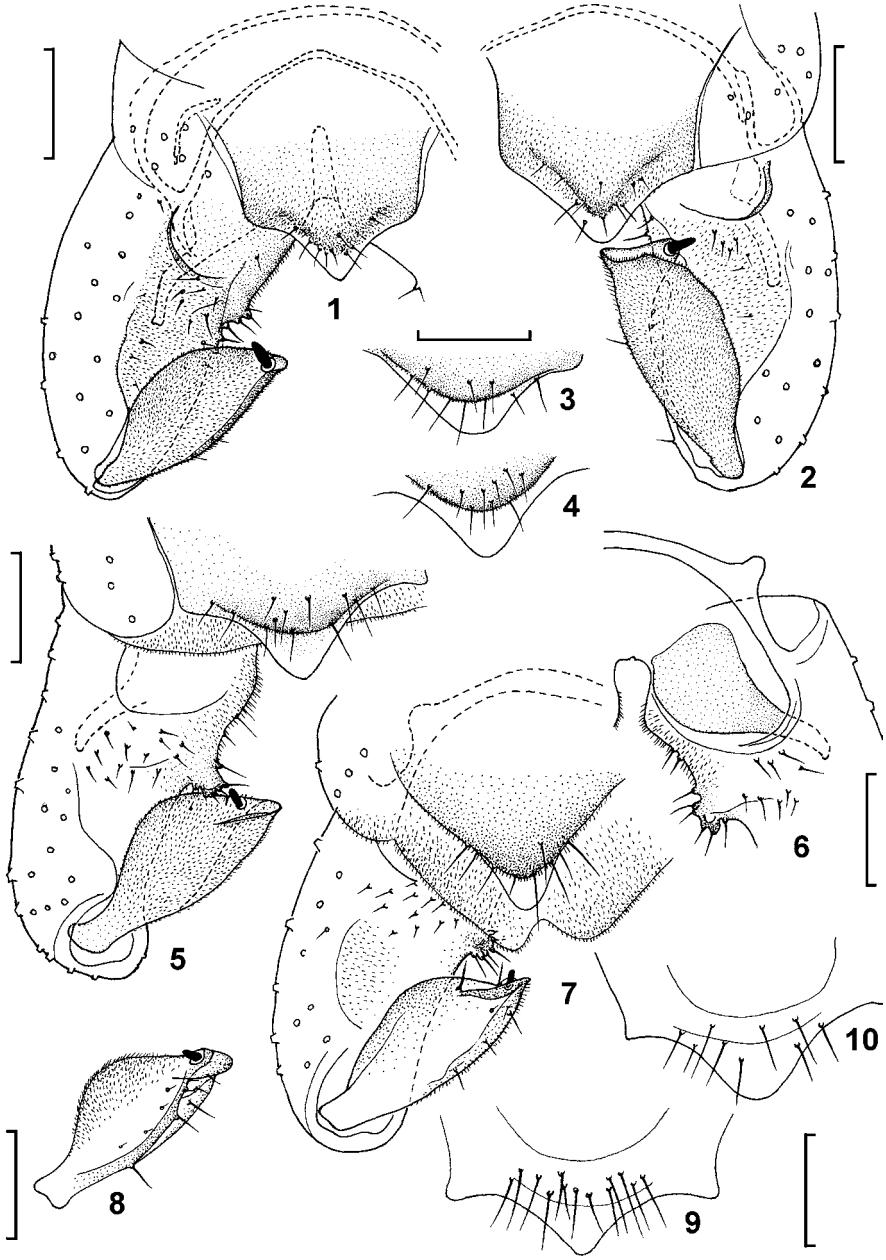
Length (μm) and proportions of leg segments (n=8):

	fe	ti	ta_1	ta_2
P_1	640–690, 673	736–840, 780	424–512, 473	256–304, 281
P_2	660–672, 677	720	310–384, 330	176–192, 181
P_3	688–784, 735	784–848, 816	464–528, 487	208–250, 237

	ta_3	ta_4	ta_5	LR
P_1	176–224, 198	128–144, 133	88–110, 98	0.58–0.65, 0.61
P_2	130–160, 145	90– 96, 95	80–100, 85	0.43–0.53, 0.46
P_3	192–224, 206	110–128, 116	80–110, 92	0.56–0.62, 0.60

	SV	BV
P1	2.89–3.25, 3.08	2.59–2.78, 2.72
P2	3.63–4.51, 4.28	3.36–3.47, 3.42
P3	3.09–3.30, 3.19	3.02–3.38, 3.14

Hypopygium (Figs 1–21). Anal point broad, widest at base and posterior margin rounded (very rare pointed), hyaline and bare, 20–32, 22.3 μm long and 38–48, 42.7 μm wide. Tergite IX with 9–15, 12 setae, some of them are situated in basal part of anal point; laterosternite IX with 7–10, 8 setae. Transverse sternapodeme 92–130, 115 μm long. Virga 20–48, 31.2 μm long, consists of 2 setae. Inferior volsella



Figs 1-10. Males imagines of *Bryophaenocladius akiensis* from Japan (1-2); Primorye Territory, Partizanskaya R. (3-6); Moneron Island (7) and Okhotsk Sea coast of Magadan region, Taui R. basin (8-10): 1-2, 5, 7) hypopygium, from above; 3-4, 9-10) anal point; 6) part of hypopygium with inferior volsella and phallapodeme; 8) gonostylus. Scale bars 50 μm.

like knob or cone-shaped, with some setae, gonocoxite length 200–256, 235 μm. Gonostylus wide in middle part, 92–112, 106 μm long, acutely hooked or pointed apically, with middle size megaseta. HR 1.38–1.84, 1.60.

REMARKS. *Bryophenocladius akiensis* (Sasa, Shimomura et Matsuo) was described as *Okinawayusurika akiensis* by single male from Hiroshima Prefecture of Japan (Sasa et al., 1991). Males from Japan and Russian Far East populations have sufficiently wide variability of AR, LR, anal point shape and sometimes of gonostylus shape. Therefore, we decided to show in our revision figures of hypopygium, namely of anal points and gonostylus, from Honshu, Sakhalin, Moneron and Kurile Islands, Amur River basin, Primorye and Magadan Territories of the Russian Far East. Some taxonomists after comparing of Figs. 1–21 can decide that may be some specimens are separate species. But on our mind we to deal with wide variability of island populations of species. In this case is using of DNA in future will be very useful for population analysis. Female and immature stages unknown.

DISTRIBUTION. This species is known from Japan (Yamamoto, 2004) and Russia (Sakhalin, Moneron and Kurile Islands, Amur River basin, Primorye and Magadan Territories).

Bryophaenocladius auritus **Makarchenko et Makarchenko, sp. n.**
Fig. 22

MATERIAL. Holotype: ♂, Gytgylveirhipylhen River, the upper reaches (Velikaya River basin), North East spurs of Koryak upland region, Chukotka, Russian Far East, 1.VIII 1980 (leg. E. Makarchenko).

ETYMOLOGY. Named after the Latin *auritus* – big-eared. May be it is ridiculous but inferior volsellae of gonocoxites are like big-eared.

MALE IMAGO. Total length 2.3 mm. Wing length 1.52 mm. Total length/wing length 1.52. Coloration dark brown.

Head. Temporal setae including only 2 postorbitals; verticals absent. Clypeus with 4 setae. Palpomere length (μm): 40, 56, 136, 104, 124. AR 1.12–1.16.

Thorax. Antepronotum with 3 lateral setae. Acrostichals 8, dorsocentrals 13–14, prealars 4. Scutellum with 8 setae.

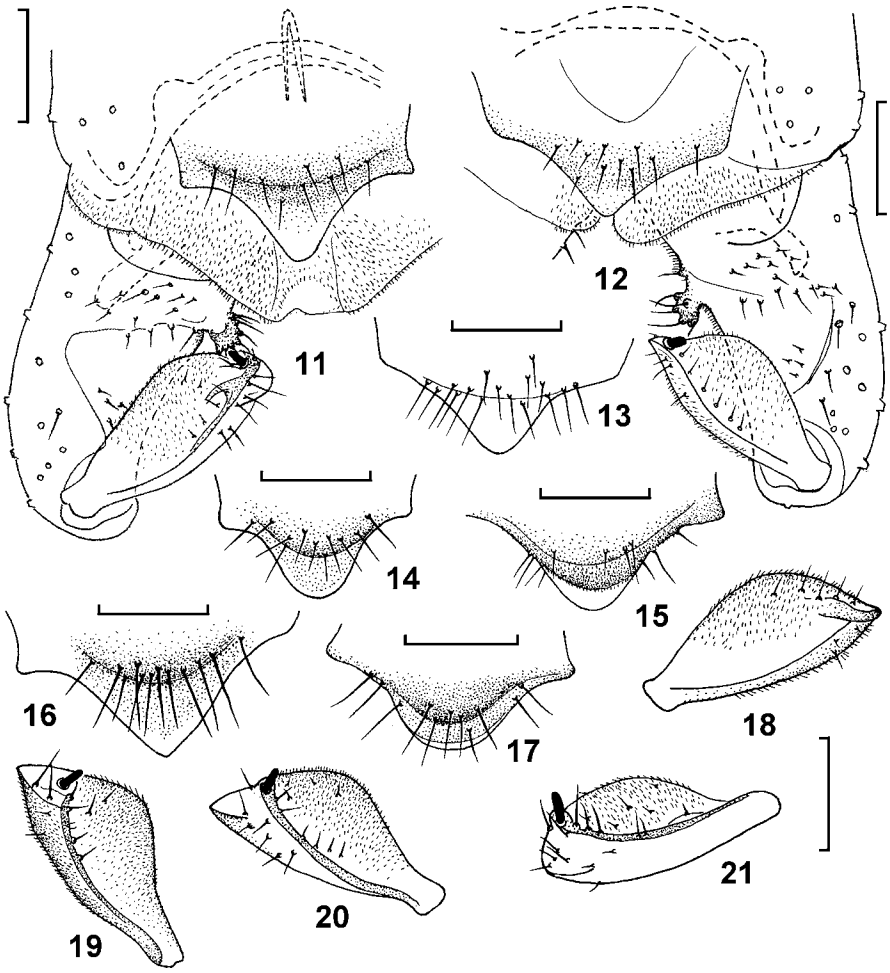
Wing. Anal lobe slightly reduced. Squama with 4 setae. R with 9 setae, R_1 with 2–5 setae, R_{4+5} without setae. Costal extension 75 μm.

Legs. BR_1 2.4, BR_2 2.6, BR_3 4.4. Spur of front tibia 52 μm. Spurs of middle tibia 40 μm and 26 μm long, of hind tibia 52 μm and 28 μm. Middle tibia without comb. Hind tibial comb with 11setae.

Length (μm) and proportions of leg segments:

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	SV	BV
P_1	672	776	464	288	224	144	96	0.60	3.12	2.54
P_2	704	768	384	184	136	96	96	0.50	3.83	3.63
P_3	768	880	528	272	208	112	96	0.60	3.12	3.16

Hypopygium (Fig. 22). Anal point long (55 μm) and wide (30 μm), apical part not visible, anal point length/width 1.83. Tergite IX with 13 long setae; laterosternite IX with 7 setae. Phallapodeme 98 μm long; transverse sternapodeme 117.5 μm long. Virga 8 μm long, composed of cluster of spines. Inferior volsella dark and bare, 28–36 μm long. Gonostylus straight, 100 μm long, without crista dorsalis. Megaseta 12.8 μm long. HR 2.2.



Figs 11-21. Males imagines of *Bryophaenocladius akiensis* from Sakhalin Island: Uskovka R. (11), Piltun R. (13), Tym' R. basin (14, 20), Val R. (16); Amur R. basin, Urgal R. (12); Kurile Islands: Urup Island (15, 19), Simushir Island (17-18, 21): 11-12) hypopygium, from above; 13-17) anal point; 18-21) gonostylus. Scale bars 50 μm.

DISTRIBUTION. This species is known only from type locality – mountains of Koryak upland region, Chukotka, Russian Far East.

REMARKS. Male of *B. auritus* sp. n. is closely related to *B. aestivus* Br. and separated from late by not knob-like shape of interior volsella and by shape of tergite IX and anal point. Female and immature stages unknown.

***Bryophaenocladius distinctus* Makarchenko et Makarchenko, sp. n.**
Fig. 23

MATERIAL. Holotype: ♂, unnamed stream about 2 km from Kievka Village, Lazovsky district, Primorye Territory, Russian Far East, 26.V 2004 (leg. E. Makarchenko).

ETYMOLOGY. Named after Latin *distinctus* – separated. Male of new species is good separated from Japanese species *B. togatenuis* Sasa et Okazawa.

MALE IMAGO. Total length 3 mm. Wing length 1.7 mm. Total length/wing length 1.76. Coloration dark brown.

Head. Temporal setae 9–10; including 7–8 verticals and 2 postorbitals. Clypeus with 8 setae. Palpomere length (μm): 28, 50, 43, 108, 118. AR 1.01–1.02.

Thorax. Antepronotum with 3 lateral setae. Acrostichals 22, dorsocentrals 10, prealars 3–4. Scutellum with 12 setae.

Wing. Anal lobe reduced. Squama with 2 setae. R with 8–9 setae, R_1 with 1–4 setae, R_{4+5} with 11 setae. Costal extension 50 μm.

Legs. BR_1 2.2, BR_2 2.8, BR_3 4.2. Spur of front tibia 40 μm. Both spurs of middle tibia 22–23 μm long, of hind tibia 50 μm and 20 μm. Middle tibia without comb. Hind tibial comb with 12 spines.

Length (μm) and proportions of leg segments:

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	SV	BV
P_1	672	816	464	272	192	144	96	0.57	3.21	2.77
P_2	688	720	344	176	144	112	80	0.48	4.09	3.42
P_3	704	816	456	240	192	128	96	0.56	3.33	3.01

Hypopygium (Fig. 23). Anal point bare, 37.5 μm long, narrow and parallel sided. Tergite IX with 22 long setae; laterosternite IX with 7 setae. Transverse sternapodeme 112.5 μm long. Virga absent. Inferior volsella double, dorsal lobe wide and partly cover ventral lobe. Gonostylus slightly curved, 72 μm long, with crista dorsalis. Megaseta 12 μm long. HR 3.3.

DISTRIBUTION. This species is known only from type locality – South part of Primorye Territory of the Russian Far East.

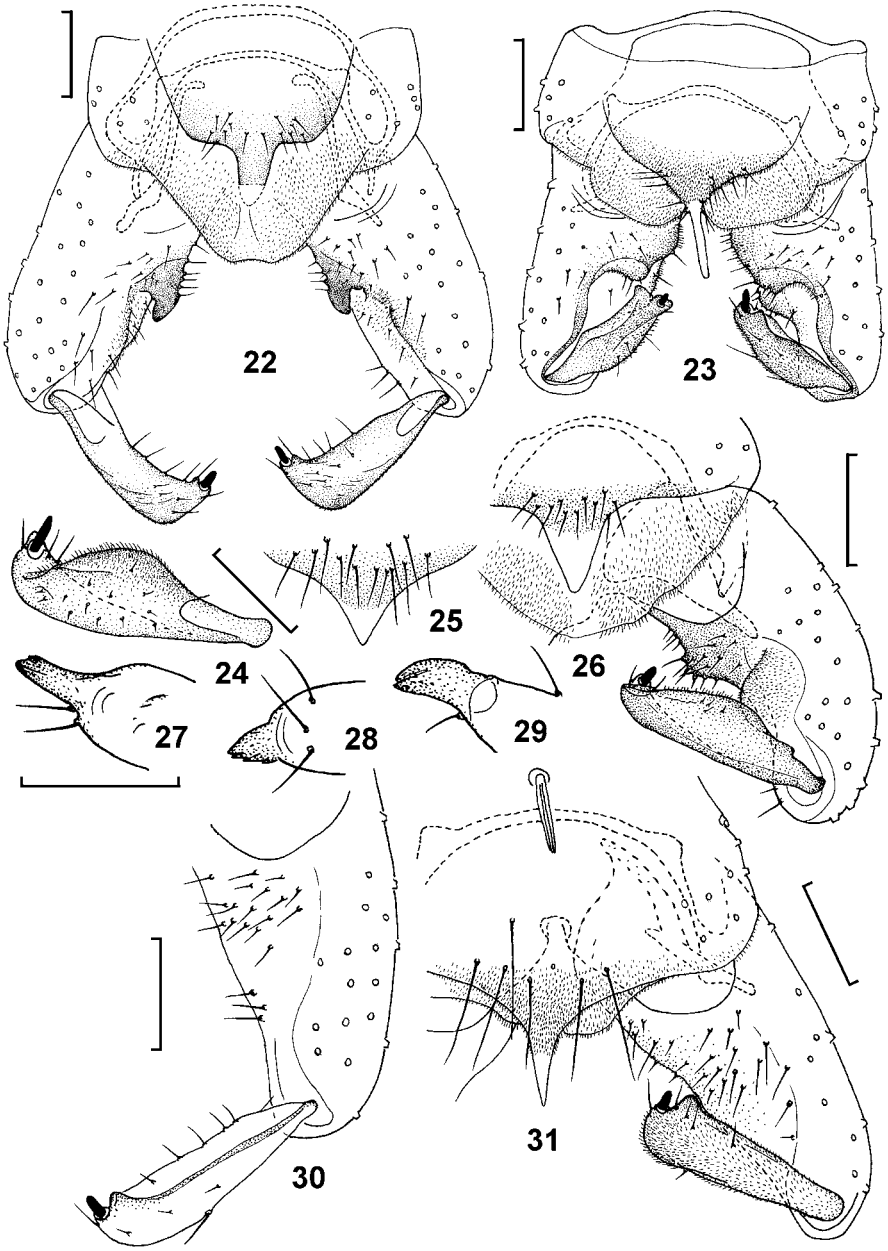
REMARKS. *B. distinctus* sp. n. is close related to *B. togatenuis* Sasa et Okazawa, 1992 from Japan but good separated from last by shape of inferior volsella. Male of a new species also without virga and with some long setae in basal part of anal point, AR 1.01–1.02. Male of *B. togatenuis* with virga and without setae in basal part of anal point, AR 1.14 (Sasa & Okazawa, 1992). Female and immature stages unknown.

***Bryophaenocladius flavoscutellatus* (Malloch, 1915)**
Figs 24–29

Orthocladius flavoscutellatus Malloch, 1915: 523.

Bryophaenocladius flavoscutellatus (Malloch, 1915): Cranston & Oliver, 1988: 429; Wang et al., 2004: 7 (in key).

MATERIAL. 1 ♂, Tym River, the upper reaches (50°36’897’’N; 142°55’365’’E), about 15 km to East from Palevo Village, Sakhalin Island, Russian Far East, 27.VII



Figs 22-31. Males of *Bryophaenocladius auritus* sp. n. (22), *B. distinctus* sp. n. (23), *B. flavoscutellatus* (24-29), *B. korkishkoi* sp. n. (30-31): 22-23, 26, 31) total view of hypopygium, from above; 24) gonostylus; 25) anal point; 27-29) projection of third palpomere; 30) gonocoxite and gonostylus. Scale bars 50 μm.

2003 (leg. D. Bennett); 1 ♂, Verkhnaya Perevalovka River, low stream (43°00’15’’N, 131°29’05’’E), Khasansky district, Primorye Territory, Russian Far East, 5.VIII 1999 (leg. E. Makarchenko); 3 ♂, Dolgyi Sream, Terneisky district, Sikhote-Alinsky nature reserve, 4.VIII 2004 (leg. O. Zorina).

MALE IMAGO (n = 2). Total length 3.25 mm. Wing length 1.28 mm. Total length/wing length 2.53. Coloration dark brown.

Head. Temporal setae 8–9; including 5 verticals and 3–4 postorbitals. Clypeus with 9–12 setae. Palpomere length (μm): 36, 40, 208, 156, 216; third palpomere with digitiform projection (Figs 27–29). AR 1.37–1.52.

Thorax. Antepronotum with 5–6 lateral setae. Acrostichals 18–21, dorsocentrals 18–26, prealars 11, supraalars 1. Scutellum with 9–12 setae.

Wing. Anal lobe good developed. Squama with 7–18 setae. R with 6–11 setae, R_1 with 0–4 2setae, R_{4+5} without setae. Costa without extension.

Legs. BR_1 2.6, BR_2 2.8–3.0, BR_3 3.5–4.2. Spur of front tibia 80–84 μm. Spurs of middle tibia 60 μm and 32 μm long, of hind tibia 68 μm and 40 μm. Middle tibia with comb of 6–10 spines. Hind tibial comb with 16 spines.

Length (μm) and proportions of leg segments (n=1):

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	SV	BV
P_1	780	890	560	300	235	160	105	0.63	2.98	2.76
P_2	830	820	400	190	165	110	95	0.49	4.13	3.67
P_3	850	950	560	280	230	130	100	0.56	3.21	3.19

Hypopygium (Figs. 24–26). Anal point about 36 μm long, widely triangular, bare in distal 2/3; in basal part with 10–11 long setae. Tergite IX with 10–12 long setae; laterosternite IX with 5–9 setae. Phallapodeme 116–120 μm long; transverse sternapodeme 80–120 μm long. Virga 44 μm long, composed of 8–9 cluster of spines. Inferior volsella small and roundish, With some short setae. Gonostylus slightly prominent in middle part, 112–116 μm long, without crista dorsalis. Megaseta 16 μm long. HR 2.5.

DISTRIBUTION. This species was known before only from Nearctic region: USA (Illinois) and Canada (New Brunswick, Ontario) (Oliver et al., 1990). We are recording *B. flavoscutellatus* in Palaearctic region for the first time where it was found in Russia on Sakhalin Island and in Primorye Territory.

REMARKS. The subgenus *Odontocladius* Albu et Tatole in Tatole, 1993 was established for species in which the adult male third palpomere carries an apical projection. Our material contains two such species: *B. flavoscutellatus* (Malloch) and *B. psilacrus* Sæther. However, we consider that single character as insufficient justification for a subgenus, especially in the light of possible intraspecific variation in the length of the palpomere projection. For example, in the Russian Far East the third palpomeres of males of *B. subparallelus* (Malloch) are without apical projections, whereas specimens from North America do show short projections (Wang et al., 2004, and personal communication of Dr. X. Wang). Female and immature stages unknown.

Bryophaenocladius korkishkoi **Makarchenko et Makarchenko, sp. n.**
Figs 30–31

MATERIAL. Holotype: ♂, Kaskadny Stream, Khasansky district, Kedrovaya Pad nature reserve, Primorye Territory, Russian Far East, 3.VIII 1999 (leg. E. Makarchenko). Paratypes: 2 ♂, Pervyi Zolotoi Stream, Kedrovaya Pad nature reserve, 18.VII 1975 (leg. L. Zhiltzova); 1 ♂, Kedrovaya River, Kedrovaya Pad nature reserve, light trap, 31.VII 1975 (leg. E. Makarchenko).

ETYMOLOGY. New species is named in blessed memory of Dr. Viktor Korkishko from Kedrovaya Pad nature reserve.

MALE IMAGO (n=2). Total length 2.75 mm. Wing length 1.57 mm. Total length/ wing length 1.75. Coloration yellowish.

Head. Temporal setae 8–11; including 7–10 verticals and 1 postorbitals. Clypeus with 3 setae. Palpomere length (μm): 28, 40, 115, 93, 138. AR 1.19–1.20.

Thorax. Antepronotum with 2–3 lateral setae. Acrostichals 10, dorsocentrals 5–6, prealars 3. Scutellum with 3 setae.

Wing. Anal lobe reduced. Squama with 0–1 seta. R with 2 setae, R_1 and R_{4+5} without setae. Costal extension 62.5 μm.

Legs. BR_1 2.1, BR_2 2.3, BR_3 3.8. Spur of front tibia 52 μm. Spurs of middle tibia 36 μm and 20 μm long, of hind tibia 52 μm and 24 μm. Middle tibia without comb. Hind tibial comb with 14setae.

Length (μm) and proportions of leg segments (n=4):

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5
P_1	750–830	840–910	650–730	390–415	270–290	175–190	90–100
P_2	750–760	750–830	430–460	220–250	170–180	110–120	90–100
P_3	800–870	930–990	560–590	280	220	130	95

	LR	SV	BV
P_1	0.76–0.82	2.26–2.46	2.41–2.80
P_2	0.54–0.56	3.33–3.58	3.19–3.34
P_3	0.60	3.00–3.15	3.17–3.38

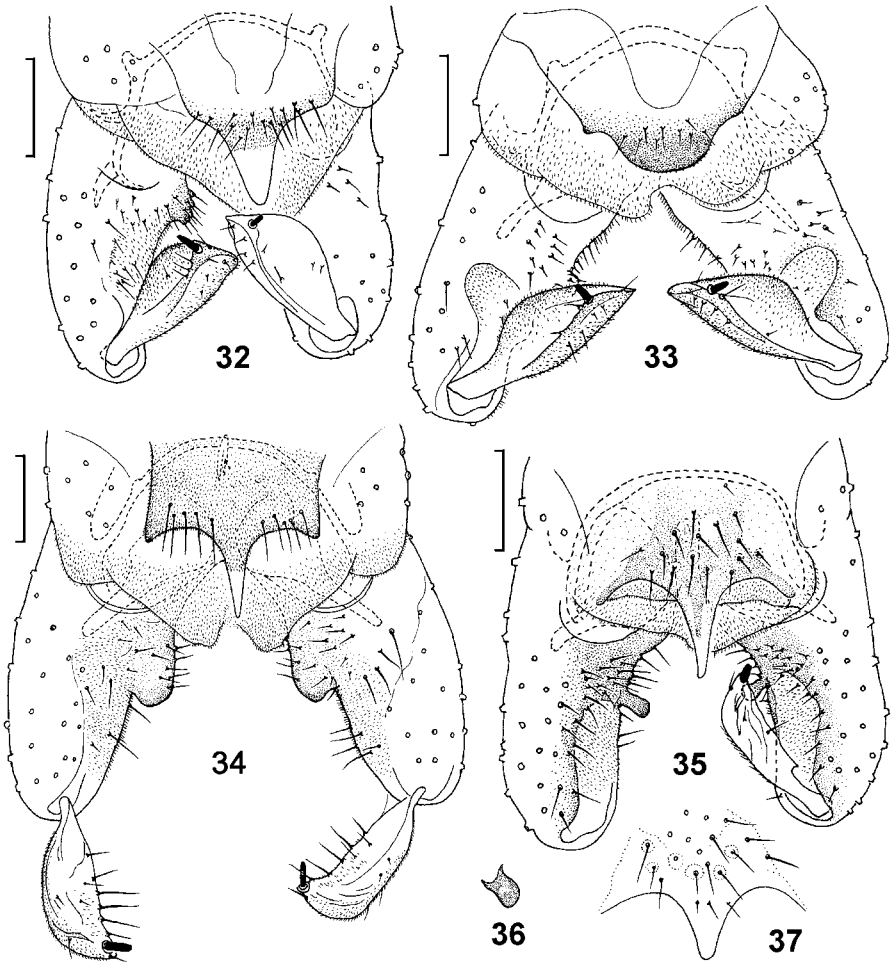
Hypopygium (Figs. 30–31). Anal point 37.5 μm long, narrow-triangular, bare in distal half. Tergite IX with 7 long setae; laterosternite IX with 6–8 setae. Transverse sternapodeme 112.5 μm long. Virga 35 μm long. Inferior volsella absent. Gonostylus straight, 102 μm long, with crista dorsalis in subapical part. Megaseta 8 μm long. HR 2.3.

DISTRIBUTION. This species is known only from type locality – Kedrovaya Pad nature reserve in South Primorye, Russia.

REMARKS. Male imagines of new species is good separated from known species of *Bryophaenocladius* by absence of inferior volsella, shape of anal point and gonostylus which with crista dorsalis. Female and immature stages unknown.

Bryophaenocladius kobayashii **Makarchenko et Makarchenko, sp. n.**
Fig. 32

MATERIAL. Holotype: ♂, mouth of Naiba River (47º24’992’’N 142º45’384’’E), about 2-4 km from Starodubskoe Village, Sakhalin Island, Russian Far East, 12.VIII 2001 (leg. Yu. Marusik). Paratypes: 19 ♂, the same data as holotype.



Figs 32-37. Males of *Bryophaenocladius kobayashii* sp. n. (32), *B. lanceolatus* sp. n. (33), *B. moneronus* sp. n. (34), *B. nitidicollis* (35-37): 32-35) total view of hypopygium, from above; 36) inferior volsella; 37) anal point. Scale bars 50 μm.

ETYMOLOGY. This species is named in honour of Dr. Tadashi Kobayashi who most part of his life studies taxonomy and systematics of Japanese chironomids.

MALE IMAGO (n = 2). Total length 2.1 mm. Wing length 1.68 mm. Total length/ wing length 1.25. Coloration light brown or yellowish brown.

Head. Temporal setae including 3–4 postorbitals and 3–4 verticals. Clypeus with 6-7 setae. Palpomere length (μm): 28, 46, 106, 76, 92. Head width/palpal length 1.15. AR 0.89–0.92.

Thorax. Antepronotum with 4 lateral setae. Acrostichals 15–17, dorsocentrals 9–12, prealars 6–8, supraalars 1. Scutellum with 4–6 setae.

Wing. Anal lobe reduced. Squama with 2–4 setae. R and R_1 with 11–13 setae, R_{4+5} without setae. Costal extension 84 μm.

Legs. BR_1 2.1, BR_2 2.3, BR_3 3.9. Spur of front tibia 50–52.5 μm. Spurs of middle tibia 35–37.5 μm and 20 μm long, of hind tibia 46–50 μm and 15–20 μm. Middle tibia without comb. Hind tibial comb with 12–13 spines. Pseudospurs on ta_1 and ta_2 absent.

Length (μm) and proportions of leg segments (n=2):

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5
P_1	560–580	660–690	410	260	190	110	90
P_2	550–560	640–645	300	155–170	120	80	75
P_3	620–630	740	430–460	230	180–190	100	80–85

	LR	SV	BV
P_1	0.59	3.10	2.58
P_2	0.47	3.97–4.02	3.38–3.47
P_3	0.58–0.62	2.98–3.16	3.02–3.31

Hypopygium (Fig. 32). Anal point length 36 μm, width 26 μm, distal part bare, anal point length/width 1.38. Tergite IX with 9–16 setae; laterosternite IX with 6 setae. Phallapodeme 88–100 μm long; transverse sternapodeme 104 μm long. Virga 28–32 μm long, composed of 2 spines. Gonostylus 80 μm long, without crista dorsalis. Megaseta 10–12 μm long. HR 1.73.

DISTRIBUTION. This species is known only from type locality – low stream of the Naiba River on Sakhalin Island.

REMARKS. Male imagines of new species is closely related to *B. akiensis*, but good separate from the latter by length and shape of anal point and some other features adduced below in the key. Female and immature stages unknown.

Bryophaenocladius lanceolatus **Makarchenko et Makarchenko, sp. n.**
Fig. 33

MATERIAL. Holotype: ♂, unnamed small brackish lake near Perevoznaya Village (43°01’15’’N, 131°33’05’’E), Khasansky district, Primorye Territory, Russian Far East, 5.IX 1999 (leg. E. Makarchenko). Paratype: 1 ♂, the same data as holotype.

ETYMOLOGY. Named after Latin *lanceolatus* denoting lanceolate shape of gonostylus.

MALE IMAGO (n = 1). Total length 1.75 mm. Wing length 1.2 mm. Total length/ wing length 1.46. Coloration dark brown.

Head. Temporal setae including only 3–4 outer verticals. Clypeus with 7 setae. Palpomere length (μm): 32, 42, 112, 76, 92. AR 0.56–0.62.

Thorax. Antepronotum with 4 lateral setae. Acrostichals 14, dorsocentrals 9, prealars 6. Scutellum with 7 setae.

Wing. Anal lobe reduced. Squama with 1–2 setae. R with 10 setae, R_1 with 12 setae, R_{4+5} without setae. Costal extension 56 μm.

Legs. BR_1 2.2, BR_2 2.5, BR_3 3.83. Spur of front tibia 37.5 μm. Spurs of middle tibia 35 μm and 17.5 μm long, of hind tibia 42.5 μm and 17.5 μm. Middle tibia without comb. Hind tibial comb with 11 spines. Middle and hind legs without pseudospurs.

Length (μm) and proportions of leg segments:

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	SV	BV
P_1	480	570	270	180	150	90	75	0.47	2.53	2.74
P_2	520	550	250	130	100	70	70	0.45	3.57	3.26
P_3	530	620	360	180	150	80	70	0.58	3.08	3.16

Hypopygium (Fig. 33). Anal point length 20 μm, width 52 μm, distal part bare, anal point length/width 0.38. Tergite IX with 10 setae; laterosternite IX with 9–10 setae. Transverse sternapodeme 96 μm long. Virga 20 μm long, composed of 2 spines. Inferior volsella small. Gonostylus 96 μm long, without crista dorsalis, lanceolate shape. Megaseta 12 μm long. HR 1.64.

DISTRIBUTION. This species is known only from type locality – Khasan district of the Primorye Territory.

REMARKS. Male imagines of new species is close related to *B. akiensis*, but good separated from the latter by shape of gonostylus, by very wide anal point and low AR (see the key below). Female and immature stages unknown.

Bryophaenocladius moneronus **Makarchenko et Makarchenko, sp. n.**
Fig. 34

MATERIAL. Holotype: ♂, Bolshoi Stream (46°15’844’’N, 141°14’680’’E), Chuprov Bay, Moneron Island in Tatarsky Bay, Russian Far East, 23-24.VII 2004, Malaise trap (leg. E. Makarchenko).

ETYMOLOGY. This species is referred to by one's name of Moneron Island.

MALE IMAGO. Total length 2.6 mm. Wing length 1.68 mm. Total length/wing length 1.55. Coloration dark brown.

Head. Temporal setae including 2 postorbitals, 5 inner verticals and 2 outer verticals. Clypeus with 11 setae. Palpomere length (μm): 32, 48, 120, 108, 132. Head width/palpal length 1,1. AR 1.13.

Thorax. Antepronotum with 2 lateral setae. Acrostichals 15, dorsocentrals 14–16, prealars 7, supraalars 1. Scutellum with 11 setae.

Wing. Anal lobe slightly reduced. Squama with 11 setae. R with 6 setae, R_1 and R_{4+5} without setae. Costal extension 64 μm.

Legs. BR_1 2.75, BR_2 2.6, BR_3 4.0. Spur of front tibia 56 μm. Spurs of middle tibia 48 μm and 26 μm long, of hind tibia 60 μm and 28 μm. Middle tibia without comb. Hind tibial comb with 12 spines. Pseudospurs present on ta_1 and ta_2 of middle and hind legs, 20–24 μm long.

Length (μm) and proportions of leg segments:

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	SV	BV
P_1	624	848	496	288	208	128	104	0.58	2.97	2.70
P_2	672	720	320	176	136	96	104	0.44	4.35	3.34
P_3	720	848	472	248	192	112	112	0.57	3.32	3.07

Hypopygium (Fig. 34). Anal point length 48 μm, width 8 μm, distal half bare, anal point length/width 6. Tergite IX with 9 long setae, with slightly protruding

caudo-lateral angles; laterosternite IX with 8 setae. Phallapodeme 100–108 μm long; transverse sternapodeme 100 μm long. Virga 20 μm long, composed of 2 spines. Inferior volsella with some short setae. Gonostylus 96 μm long, without crista dorsalis. Megaseta 12 μm long. HR 2.17.

DISTRIBUTION. This species is known only from type locality – Moneron Island which is situated in the South West of Nevelsk Town on Sakhalin Island.

REMARKS. New species is separated from other known species by shape of tergite IX, anal point and some other features adduced in the key below. Female and immature stages unknown.

***Bryophaenocladius nitidicollis* (Goetghebuer, 1913)**

Figs 35–37

Orthocladius nitidicollis Goetghebuer, 1913: 163; Goetghebuer, 1940-50: 68.

Bryophaenocladius nitidicollis (Goetghebuer, 1913): Pankratova, 1970: 241; Pinder, 1978: 80, Fig. 121 A.

MATERIAL. 1 ♂, unnamed stream near Ushakovsky Village, Vrangel Island, Russian Far East, 20.VII 1978 (leg. E. Makarchenko); 2 ♂, Aldikon River, branch of Selemdzha River, Amur River Basin, Russian Far East, 16.VI 2004 (leg. V. Teslenko).

MALE IMAGO (n=2). Total length 2.25–2.50 mm. Wing length 1.30–1.47 mm. Total length/wing length 1.70–1.73. Coloration dark brown.

Head. Temporal setae including 0–3 postorbitals, 7–9 verticals. Clypeus with 7 setae. Palpomere length (μm): 28, 60, 120, 76, 112. AR 1.44–1.67.

Thorax. Antepronotum with 5 lateral setae. Acrostichals 9, dorsocentrals 18–26, prealars 6–7, supraalars 1. Scutellum with 7 setae.

Wing. Anal lobe developed. Squama with 11 setae. R with 5–6 setae, R_1 and R_{4+5} without setae. Costal extension about 20 μm.

Legs. BR_1 1.75–2.2, BR_2 1.8, BR_3 2.8–3.0. Spur of front tibia 40–52 μm. Spurs of middle tibia 20–24 μm and 32–44 μm long, of hind tibia 52–60 μm and 20 μm. Middle tibia without comb. Hind tibial comb with 11–14 spines. Pseudospurs present on ta_1 of middle and hind legs, 20–24 μm long.

Length (in μm) and proportions of leg segments (n=2):

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5
P_1	540–690	650–900	330–420	200–250	150–180	90–120	80–100
P_2	610–820	650–880	240–310	140–200	100–150	90–110	80–100
P_3	600–870	925–960	360–490	190–250	145–201	80–125	80–105

	LR	SV	BV
P_1	0.47–0.51	3.61–3.79	3.05–3.09
P_2	0.35–0.37	5.25–5.48	2.68–3.68
P_3	0.39–0.51	3.73–4.24	3.41–3.81

Hypopygium (Figs. 35–37). Anal point length 32–48 μm, distal part bare. Tergite IX with 13–18 setae; laterosternite IX with 3–7 setae. Transverse sternapodeme 100–112 μm long. Virga absent. Inferior volsella small, knob-like and bare. Gonostylus 80–96 μm long, without crista dorsalis. Megaseta 8–12 μm long. HR 2.6–2.7.

DISTRIBUTION. West Palaearctic species (Pinder, 1978), for the first time is recording for Russia and the Far East.

***Bryophaenocladius piltunensis* Makarchenko et Makarchenko, sp. n.**
Fig. 38

MATERIAL. Holotype: ♂, Piltun River, North East part of Sakhalin Island, Russian Far East, 17.VIII 2001 (leg. T. Tiunova). Paratypes: 11 ♂, Ozernyi Stream, the same region as holotype, 20.VIII 2001, Malaise trap (leg. T. Tiunova).

ETYMOLOGY. This species is referred to by one's name of Piltun River on Sakhalin Island.

MALE IMAGO (n = 2). Total length 2.55–2.65 mm. Wing length 1.55–1.63 mm. Total length/wing length 1.63–1.64. Coloration brown or dark brown.

Head. Temporal setae including 2 postorbitals and 7–8 verticals. Clypeus with 1–2 setae. Palpomere length (μm): 11–20 : 15–20 : 45–48 : 28–30 : 38–41. AR 1.27–1.34.

Thorax. Antepronotum with 0–2 lateral setae. Acrostichals 2–6, dorsocentrals 11–12, prealars 6. Scutellum with 7–8 setae.

Wing. Anal lobe reduced. Squama without setae. R and R_1 with 11–14 setae, R_{4+5} with 0–3 setae. Costal extension 90–100 μm.

Legs. BR_1 3.25, BR_2 3.0, BR_3 3.6. Spur of front tibia 60 μm. Spurs of middle tibia 40 μm and 24 μm long, of hind tibia 44 μm and 20 μm. Middle tibia without comb. Hind tibial comb with 12 spines. Pseudospurs on ta_1 and ta_2 absent.

Length (in μm) and proportions of leg segments (n=2):

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5
P_1	710–715	800–810	500–520	290–300	200–210	130	95–105
P_2	700–750	750–790	340–390	170–200	130–140	100	90– 95
P_3	750–820	820–930	480	250	210	110	90

	LR	SV	BV
P_1	0.62–0.65	2.91–3.04	2.73–2.83
P_2	0.45–0.49	3.95–4.26	3.61–3.65
P_3	0.59	3.27	3.11

Hypopygium (Fig. 38). Anal point length 42–45 μm, bare, with microtrichia in basal part. Tergite IX with 9–10 setae; laterosternite IX with 3–7 setae. Transverse sternapodeme 105–112,5 μm long. Virga absent. Gonostylus 100–104 μm long, without crista dorsalis. Megaseta 10–12 μm long. HR 1.73.

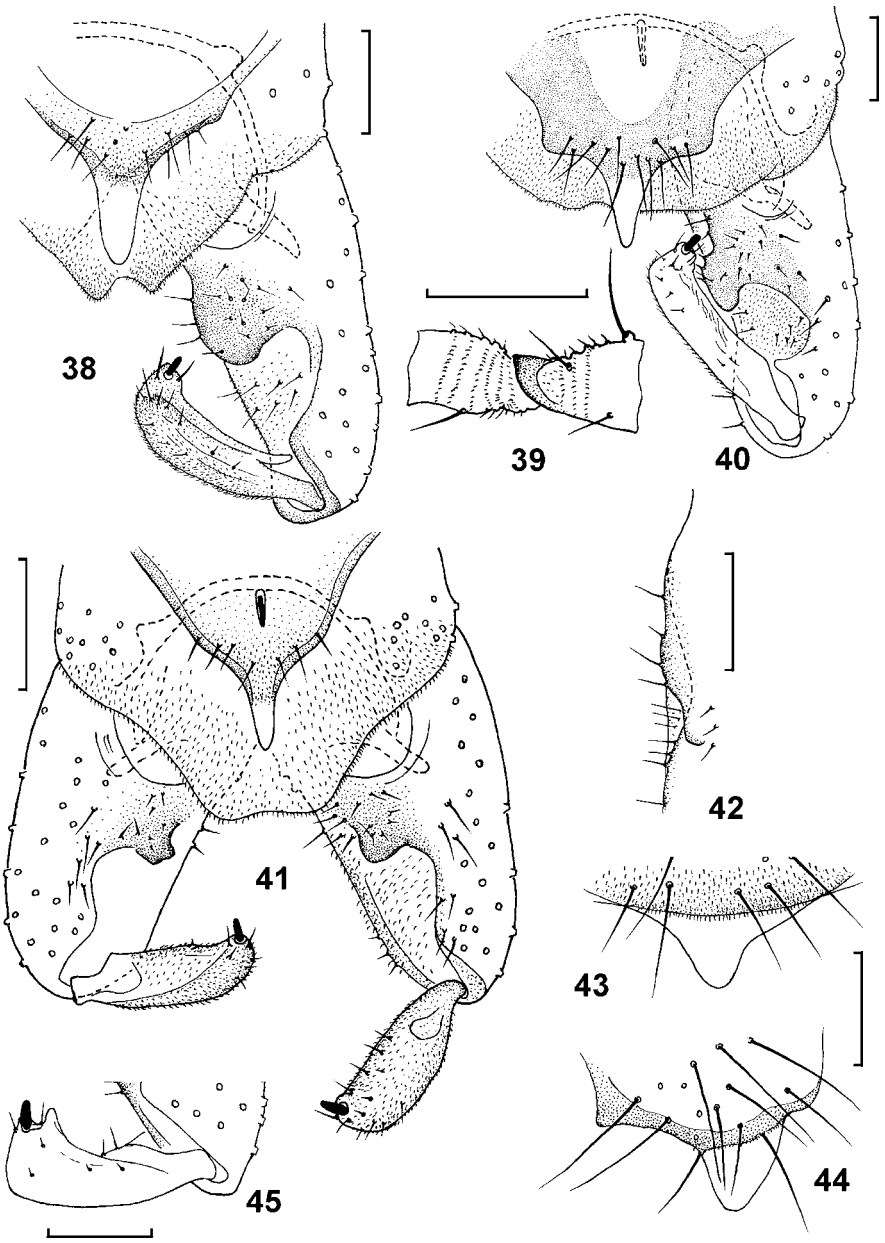
DISTRIBUTION. This species is known only from type locality – Piltun River in the North East of Sakhalin Island.

REMARKS. New species is close related to *B. vernalis* (Goetgh.) by male, but good separated from the latter by some features adduced below in the key.

***Bryophaenocladius psilacrus* Sæther, 1982**
Figs 39–40

Bryophaenocladius psilacrus Sæther, 1982: 500.
Bryophaenocladius psilacrus Sæther, 1982: Wang et al., 2004: 8 (in key).

MATERIAL. 1 ♂, Evai River, North part of Sakhalin Island, Russian Far East, 7-8.IX 2001, Malaise trap (leg. T. Tiunova).



Figs 38-45. Males of *Bryophaenocladius piltunensis* sp. n. (38), *B. psilacrus* (39-40), *Bryophaenocladius* sp. (41), *B. subparallelus* (42-45): 38, 40-41) total view of hypopygium, from above; 39) projection of third palpomere; 42) inferior volsella; 43-44) anal point; 45) gonostylus. Scale bars 50 μm.

MALE IMAGO. Total length 2.7 mm. Wing length 2.16 mm. Total length/wing length 1.25. Coloration dark brown.

Head. Temporal setae including 2–5 postorbitals, 11verticals. Clypeus with 5 setae. Palpomere length (μm): 30, 36, 148, 100, 116–120; third palpomere with apical digitiform projection (Fig. 39). Head width/palpal length 1,12. AR 1.36.

Thorax. Antepronotum with 3 lateral setae. Acrostichals absent, dorsocentrals 15–16, prealars 6. Scutellum with 5 setae.

Wing. Anal lobe slightly reduced. Squama with 4–5 setae. R with 15 setae, R_1 with 8 setae, R_{4+5} without setae.

Legs. BR_1 2.2, BR_2 2.5, BR_3 3.83. Spur of front tibia 70 μm. Spurs of middle tibia 48 μm and 24 μm long, of hind tibia 56 μm and 28 μm. Middle tibia without comb. Hind tibial comb with 13 spines. Middle and hind legs without pseudospurs.

Length (μm) and proportions of leg segments:

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	SV	BV
P_1	825	1000	720	400	260	160	110	0.72	2.53	2.74
P_2	800	880	470	250	180	120	110	0.53	3.57	3.26
P_3	860	1050	620	310	240	140	110	0.59	3.08	3.16

Hypopygium (Fig. 40). Anal point length 40 μm, width 24 μm, distal part bare, anal point length/width 1,67. Tergite IX with 13 setae; laterosternite IX with 5–6 setae. Phallapodeme 56–60 μm long; transverse sternapodeme 128 μm long. Virga 28 μm long, composed of 2 spines. Inferior volsella with some short setae. Gonostylus 116 μm long, without crista dorsalis. Megaseta 12–14 μm long. HR 1.96.

DISTRIBUTION. Holarctic species. Before finding on Sakhalin Island this species was known only from Nearctic region – U.S.A. (South Carolina) (Sæther, 1982).

REMARKS. *B. psilacrus* was described from North America by single male with AR 1.19 and LR 0.68. Specimen from Sakhalin Island with AR 1.36 and LR 0.72. Male imagines of this species is close related to *B. subvernalis* (Edw.), but the latter without apical projection of third palpomere. Female and immature stages unknown.

***Bryophaenocladius* sp.**
Fig. 41

MATERIAL. ♂, unnamed stream near Ushakovsky Village, Vrangel Island, Russian Far East, 2.VII 1979 (E. Makarchenko).

MALE IMAGO. Coloration dark brown.

Head. Temporal setae including 3–4 inner verticals and 3–4 outer verticals. Palpomere length (μm): 28, 56, 96, 92, 100. Head width/palpal length 1.38. Clypeus with 6 setae.

Thorax. Antepronotum with 4 lateral setae. Acrostichals 10, dorsocentrals 14, prealars 4–5, supraalars 1.

Wing. Anal lobe slightly reduced. Squama without setae. R with 4 setae.

Legs. BR_1 2.14, BR_2 2.17, BR_3 3.77. Spur of front tibia 50 μm. Spurs of middle tibia 40 μm and 28 μm long, of hind tibia 52 μm and 28 μm. Middle tibia without comb. Hind tibial comb with 13 spines. Middle ta_1 and ta_2, hind ta_1 with pseudospurs.

Length (μm) and proportions of leg segments:

	fe	ti	ta 1	ta2	ta3	ta4	ta 5	LR	SV	BV
P1	640	800	384	240	192	128	96	0.48	3.75	2.78
P2	720	752	304	192	144	112	104	0.40	4.84	3.22
P3	768	896	456	240	192	128	112	0.51	3.65	3.15

Hypopygium (Fig. 41). Anal point length 48 μm, width 16 μm, distal half bare, anal point length/width 3. Tergite IX with 8 setae; laterosternite IX with 9 setae. Inferior volsella small and bare. Phallapodeme 100 μm long; transverse sternapodeme 136 μm long. Virga 40 μm long, composed of 2–3 spines. Gonostylus 112 μm long, without crista dorsalis. Megaseta 12 μm long. HR 2.18.

DISTRIBUTION. Known only from Vrangel Island (arctic part of the Russian Far East).

REMARKS. This species apparently is new but we have only one male in bad condition and decided not describe it as new. Male close related to *B. subvernalis* (Edw.), but can be separated from the latter by shape of tergite IX and inferior volsella (see the key below).

***Bryophaenocladius subparallelus* (Malloch, 1915)**

Figs 42–46

Orthocladius (*Orthocladius*) *subparallelus* Malloch, 1915: 522; Frison, 1927: 174.

Hydrobaenus (*Hydrobaenus*) *subparallelus* (Malloch, 1915): Johannsen, 1952:23.

Orthocladius subparallelus (Malloch, 1915): Sublette & Sublette, 1965: 157.

Clinocladius subparallelus (Malloch, 1915): Sublette, 1970: 51.

Bryophaenocladius subparallelus (Malloch, 1915): Sæther, 1976: 271; Wang et al., 2004: 8 (in key).

MATERIAL. 1 ♂, Gusinoe Lake, Putyatin Island, Primorye Territory, Russian Far East, 9.VII 1999 (leg. E. Makarchenko); 2 ♂, unnamed lake near Veselyi Yar Village, Primorye Territory, 24.VIII 2000 (leg. P. Ivanov); 2 ♂, Ussuri River, near the mouth of Arsenyevka River, Primorye Territory, Russian Far East, 30.V 1992 (leg. T. Tiunova).

MALE IMAGO (n=2). Total length 2.7–3 mm. Wing length 1.56–1.64 mm. Total length/wing length 1.73–1.83. Coloration dark brown.

Head. Temporal setae including 2–5 postorbitals, 6–9 verticals. Clypeus with 8–9 setae. Palpomere length (μm): 28, 64, 144, 108, 120. AR 1.75–1.92.

Thorax. Antepronotum with 2–5 lateral setae. Acrostichals 11–14, dorsocentrals 14–18, prealars 6–7. Scutellum with 9–11 setae.

Wing. Anal lobe developed. Squama with 12–14 setae. R with 4 setae, R_1 and R_{4+5} without setae. Costal extension absent.

Legs. BR_1 2.6–3.0, BR_2 2.6–3.0, BR_3 3.6–3.7. Spur of front tibia 52–60 μm. Spurs of middle tibia 32 μm and 24 μm long, of hind tibia 44–48 μm and 20–24 μm. Middle tibia without comb. Hind tibial comb with 10–11spines. Middle and hind ta_1 and ta_2 with pseudospurs.

Length (μm) and proportions of leg segments (n=2):

	fe	ti	ta 1	ta2	ta3	ta4	ta 5
P1	610–650	810–860	470	300–310	200–210	120	100–110
P2	690–700	800–805	325–340	200	140	90	90– 95
P3	730–750	950–965	460–475	250–255	190–200	100	100

	LR	SV	BV
P1	0.55–0.58	3.02–3.21	2.59–2.68
P2	0.41–0.42	4.43–4.58	3.48–3.55
P3	0.48–0.50	3.58–3.68	3.32–3.37

Hypopygium (Figs. 42–46). Anal point length 28 μm, bare. Tergite IX with 16–17 setae; laterosternite IX with 9 setae. Inferior volsella small, like tubercle. Transverse sternapodeme 132 μm long. Virga 36–40 μm long, composed of 6–7 spines. Gonostylus 100–104 μm long, with crista dorsalis. Megaseta 14 μm long. HR 2.92.

DISTRIBUTION. Holarctic species. Before finding in Primorye Territory of the Russian Far East this species was known only from Nearctic region (Sæther, 1976).

***Bryophaenocladius tshukoticus* sp. n.**
Fig 47

MATERIAL. Holotype: ♂, unnamed stream of 94 km Egvekonot-Iultin motorway, East Chukotka, Magadansky district, Russian Far East, 28.VIII 1976 (leg. E. Makarchenko).

ETYMOLOGY. This species is referred to by one's name of Chukotka region in North-East part of the Russian Far East.

MALE IMAGO. Total length 3.1 mm. Wing length 2.03 mm. Total length/wing length 1.53. Coloration dark brown.

Head. Temporal setae including 3 postorbitals, 2–3 verticals. Clypeus with 12 setae. Palpomere length (μm): 30, 53, 108, 98, 155. AR 1.23.

Thorax. Antepronotum with 3 lateral setae. Acrostichals not visible, dorsocentrals 3, prealars 4. Scutellum with 3 setae.

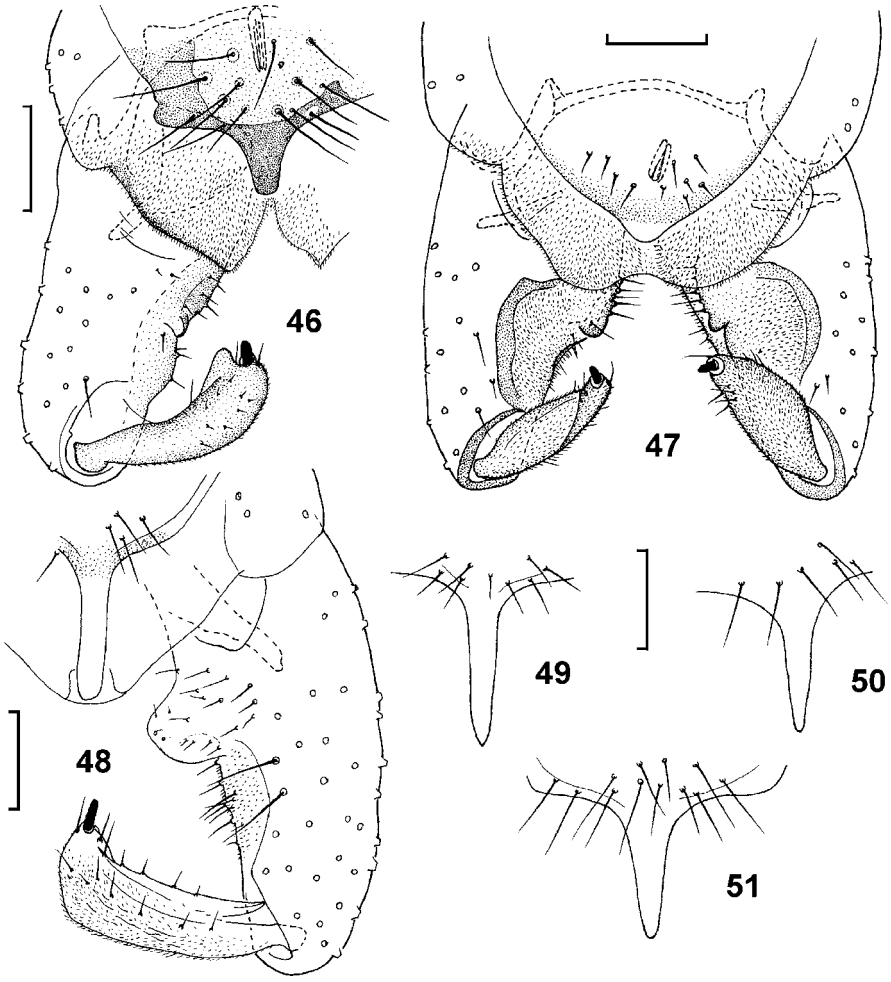
Wing. Anal lobe developed. Squama with 12. R with 3–4 setae, R_1 and R_{4+5} without setae. Costal extension 22.5 μm.

Legs. BR_1 2.4, BR_2 2.8, BR_3 4.2. Spur of front tibia 52 μm. Spurs of middle tibia 32 μm and 20 μm long, of hind tibia 56 μm and 20 μm. Middle tibia without comb. Hind tibial comb with 11setae. Middle ta_1 with pseudospurs.

Length (μm) and proportions of leg segments:

	fe	ti	ta 1	ta2	ta3	ta4	ta 5	LR	SV	BV
P1	688	848	608	352	240	160	112	0.72	2.53	2.48
P2	752	784	384	224	176	136	112	0.50	4.00	2.96
P3	816	912	528	288	240	152	120	0.58	3.27	2.82

Hypopygium (Fig. 47). Anal point short, rounded and bare, length 12.5 μm, width 180 μm, anal point length/width 0.07. Tergite IX with 4 setae; laterosternite IX with 9 setae. Inferior volsella small, like tubercle. Transverse sternapodeme 180 μm



Figs 46-51. Males imagines of *Bryophaenocladius subparallelus* (46); *B. tshukoticus* sp. n. (47); *B. vernalis* from Kurile Islands: Urup Island (48-49), Ketoi Island (50) and Sakhalin Island (51): 46-48) total view of hypopygium, from above; 49-51) anal point. Scale bars 50 μm.

long. Virga 27.5 μm long, composed of 3 spines. Gonostylus 78 μm long, without crista dorsalis. Megaseta 10 μm long. HR 3.0.

DISTRIBUTION. Known only from type locality – East Chukotka of the Russian Far East.

REMARKS. Male imagines of new species is separated from known species of *Bryophaenocladius* by knob-shape anal point, shape of inferior volsella and gonostylus (see the key below). Female and immature stages unknown.

***Bryophaenocladius vernalis* (Goetghebuer, 1921)**
Figs 48–51

Orthocladius vernalis Goetghebuer, 1921: 83; Goetghebuer, 1940-1950: 71.

Bryophaenocladius vernalis (Goetghebuer, 1921): Pinder, 1978: 78, Fig. 119 C; Kaczorowska & Gilka, 2002: 355.

MATERIAL. **Russian Far East, Primorye Territory**: 1 ♂, Goraisky Stream, Kedrovaya Pad nature reserve, Khasansky district, 18.VI 1981 (leg. E. Makarchenko); 1 ♂, the same region, Kedrovaya River, 19.VI 1995 (leg. L. Medvedeva). **Kurile Islands**: 2 ♂, unnamed stream, Van der Lind Peninsula, Urup Island, 26.VIII 1995 (leg. P. Oberg); 5 ♂, Lopukhovaya River basin, Barkhatny Bay, Urup Island, 28-29.VIII 1995 (leg. V. Teslenko); 1 ♂, Broutona Island, 23.IX 1995 (leg. B. Urbain); 13 ♂, Ketoi Island, 15.IX 1995 (leg. B. Urbain); 1 ♂, Shpilova Cape, Ekarma Island, 10.VIII 1996 (leg. V. Teslenko); 3 ♂, Shiashkotan Island, 11-12.IX 1996 (leg. N. Minakawa and P. Oberg); 1 ♂, Paramushir Island, 11.VIII 1996 (leg. P. Oberg). **Sakhalin Island**: 1 ♂, Piltun River, North-East part of island, 17.VIII 2001 (leg. T. Tiunova); 11 ♂, Ozerny Stream, Nort part of island, 20.VIII 2001 (leg. T. Tiunova); 1 ♂, upper stream of Evai River, North part of Sakhalin Island, 7-8.IX 2001 (leg. T. Tiunova); 9 ♂, Sukharny Stream, Shmidt Peninsula, 12.VIII 2003 (leg. E. Makarchenko).

MALE IMAGO (n =11, except when otherwise stated). Total length 2.9–3.5, 3.23 mm. Wing length 1.97–2.37, 2.17 mm. Total length/wing length 1.36–1.56, 1.46. Coloration dark brown.

Head. Temporal setae including 1–6, 2 postorbitals, 5–10, 7 verticals. Clypeus with 2–7, 5 setae. Palpomere length (μm): 15–23, 18 : 15–22, 19 : 58–78, 69 : 40–51, 46 : 52–87, 72. AR 1.26–1.53, 1.41.

Thorax. Antepronotum with 1–8, 3 lateral setae. Acrostichals 1–9, 5, dorsocentrals 10–22, 13, prealars 5–9, 6. Scutellum with 6–10, 8 setae.

Wing. Anal lobe developed or slightly reduced. Squama with 0–3 setae. R and R_1 with 14–27, 18 setae and R_{4+5} with 0–6, 1 setae. Costal extension 80–130, 105 μm.

Legs (n=4). BR_1 2.7–3.3, BR_2 2.8–3.3, BR_3 3.3–3.7. Spur of front tibia 64–76 μm. Spurs of middle tibia 52–64 μm and 24 μm long, of hind tibia 64–72 μm and 24 μm. Middle tibia with comb of 8–11 spines. Hind tibial comb with 11–15 spines. Middle and hind legs without pseudospurs.

Length (μm) and proportions of leg segments (n=5):

	fe	ti	ta_1	ta_2	ta_3
P_1	850–1025, 969	975–1212, 1152	720–875, 857	360–475, 413	250–330, 300
P_2	820–1060, 969	960–1125, 1052	480–587, 539	240–285, 261	170–220, 200
P_3	890–1050, 1016	1100–1250, 1206	660–790, 727	330–370, 359	230–300, 282

	ta_4	ta_5	LR	SV	BV
P_1	170–190, 180	100–120, 110	0.71–0.80, 0.75	2.29–2.54, 2.48	2.83–3.18, 2.96
P_2	120–135, 129	105–110, 109	0.46–0.50, 0.49	3.68–4.04, 3.79	3.53–3.81, 3.66
P_3	150–170, 168	120–130, 119	0.58–0.60, 0.59	2.94–3.15, 3.06	2.90–3.29, 3.13

Hypopygium (Figs. 48–51). Anal point length 55–83, 70 μm, very often parallel-sided, bare. Tergite IX with 7–13, 10 setae; laterosternite IX with 5–9, 7 setae. Transverse sternapodeme 118–145, 130 μm long. Virga 20–24 (n=4) μm long, composed of 2–4 spines. Gonostylus straight or little curved and wided in distal part. Megaseta 12–16 μm long. HR 2.0–2.58, 2.37.

DISTRIBUTION. Palaearctic species. In the Russian Far East is known from Primorye Territory, Kurile and Sakhalin Islands.

REMARKS. Males from varies parts of the Russian Far East with the anal point of different length and shape (Figs. 48–51).

KEY TO SPECIES OF OF THE RUSSIAN FAR EAST (MALES)

1. Third palpomere in apical part with projection (Figs. 27–29) 2
– Third palpomere in apical part without projection 3
2. Middle tibial comb present; Ac 18; AR 1.37–1.52; LR 0.63 . . . . ***B. flavoscutellatus*** (Malloch)
– Middle tibial comb absent; Ac 0; AR 1.32–1.36; LR 0.72 . . . . ***B. psilacrus*** Sæther
3. Middle tibial comb present 4
– Middle tibial comb absent 5
4. Middle tibial comb consists of 3–5 spines; Ac 11–18; LR 0.58–0.65; anal point short and wide; inner margin of gonostylus prominent (Figs. 1–21) . . . . ***B. akiensis*** (Sasa, Shimomura et Matsuo)
– Middle tibial comb consists of 8–11 spines; Ac 1–8; LR 0.71–0.80; anal point long and narrow; inner margin of gonostylus non-convex (Figs. 48–51) . . . . ***B. vernalis*** (Goetghebuer)
5. Gonostylus with crista dorsalis (Fig. 46) 6
– Gonostylus without crista dorsalis 8
6. Pseudospurs present on middle and hind legs; AR 1.75–1.92 . . . . ***B. subparallelus*** (Malloch)
– Pseudospurs absent; AR 1.01–1.2 7
7. Anal point parallel-sided, narrow and bare; tergite IX with short setae; IVo double; Ac 22; AR 1.01–1.02 (Fig. 23) . . . . ***B. distinctus*** sp. n.
– Anal point triangular, in basal half with microtrichia; tergite IX with long setae; IVo simple; Ac 10; AR 1.19–1.20 (Figs. 30-31) . . . . ***B. korkishkoi*** sp. n.
8. AR < 1 9
– AR > 1 10
9. Total length 1.75 mm. Anal point short and wide (Fig. 33); anal point length/anal point wide 0.38; AR 0.56–0.62; LR 0.47 . . . . ***B. lanceolatus*** sp. n.
– Total length 2.1 mm. Anal point relatively long (Fig. 32); anal point length/anal point wide 1.38; AR 0.89–0.92; LR 0.59 . . . . ***B. kobayashii*** sp. n.
10. Pseudospurs present on middle and hind ta_1 and ta_2 or at least on ta_1 11
– Pseudospurs absent 14
11. Pseudospurs present only on ta_1 12
– Pseudospurs present on ta_1 and ta_2 13
12. AR 1.44–1.67; LR 0.47–0.51; anal point middle length, triangular; IVo knob-like (Figs. 35-37) . . . . ***B. nitidicollis*** (Goetghebuer)
– AR 1.23; LR 0.72; anal point short, rounded and bare; IVo like small tubercle (Fig. 47) . . . . ***B. tshukoticus*** sp. n.

13. LR 0.58; Ac 15; tergite IX wide, with slightly protruding caudo-lateral angles (Fig. 34) . . . . . ***B. moneronus*** sp. n.
– LR 0.48; Ac 10; tergite IX narrow, without protruding caudo-lateral angles (Fig. 41) . . . . . ***Bryophaenocladius*** sp.
14. IVo wide (Fig. 38); AR 1.27–1.37 . . . . . ***B. piltunensis*** sp. n.
– IVo narrow (Fig. 22); AR 1.12–1.16 . . . . . ***B. auritus*** sp. n.

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