

Review of the genus *Pseudosmittia* Edwards
(Diptera: Chironomidae: Orthoclaadiinae)
from the Russian Far East

Обзор хирономид рода *Pseudosmittia* Edwards
(Diptera: Chironomidae: Orthoclaadiinae)
российского Дальнего Востока

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КЛЮЧЕВЫЕ СЛОВА: Chironomidae, Orthoclaadiinae, *Pseudosmittia*, новый вид, определительная таблица, обзор, российский Дальний Восток.

ABSTRACT. A new species of *Pseudosmittia* Edwards, *P. brundini* sp.n., from the Russian Far East is described and figured in the adult male stage. Twelve additional species are briefly described as males and/or commented on: *P. angusta* (Edwards), *P. bothnica* (Tuiskunen), *P. danconai* (Marcuzzi), *P. forcipata* (Goetghebuer), *P. holsata* Thienemann et Strenzke, *P. mathildae* Albu, *P. nanseni* (Kieffer), *P. nishiharaensis* Sasa et Hasegawa, *P. oxoniana* (Edwards), *P. rostriformis* Makarchenko et Makarchenko, *P. rutneri* Strenzke et Thienemann, and *P. trilobata* (Edwards). *Diplosmittia sasai* Makarchenko et Makarchenko is a new junior synonym of *Pseudosmittia mathildae*. A key to the males of the *Pseudosmittia* species from the Russian Far East is presented.

РЕЗЮМЕ. Приведен обзор 13 видов хирономид рода *Pseudosmittia* Edwards российского Дальнего Востока с описанием нового для науки вида *P. brundini* sp.n., краткими переописаниями и таксономическими комментариями малоизвестных видов *P. angusta* (Edwards), *P. bothnica* (Tuiskunen), *P. danconai* (Marcuzzi), *P. forcipata* (Goetghebuer), *P. holsata* Thienemann et Strenzke, *P. mathildae* Albu, *P. nanseni* (Kieffer), *P. nishiharaensis* Sasa et Hasegawa, *P. oxoniana* (Edwards), *P. rostriformis* Makarchenko et Makarchenko, *P. rutneri* Strenzke et Thienemann, и *P. trilobata* (Edwards). Вид *Diplosmittia sasai* Makarchenko et Makarchenko сведен в синоним к *Pseudosmittia mathildae* Albu. Дана определительная таблица по самцам известных с Дальнего Востока России видов *Pseudosmittia*.

Introduction

Pseudosmittia was described first by Goetghebuer [1932], but the genus name was made available by Edwards [1932] [Spies & Reiss, 1996; Spies & Sæther, 2004; Sæther, 2006]. The genus includes about 40 Palaeartic species [Sæther et al., 2000], 13 species are recognized for Japan [Yamamoto, 2004; Sæther, 2006]. Members of the genus also occur in the Afrotropical, Oriental, Nearctic, and Neotropical regions [Freeman & Cranston, 1980; Oliver et al., 1990; Wang, 1990; Spies & Reiss, 1996; Sæther, 2006], but the respective numbers of species remain uncertain until publication of the worldwide revision of *Pseudosmittia* by Sæther (pers.com.).

During the preparation of a key to the chironomids of the Russian Far East [Makarchenko & Makarchenko, 2006b; Makarchenko & Makarchenko, 2007] we studied material from the arctic and northern parts of this region, the Amur River Basin, the Primorye Territory, and the Sakhalin, Moneron and Kurile Islands. We found 13 species of *Pseudosmittia* one of which is described as new to science below. For the remaining 12 species brief descriptions and/or comments are presented based on the material from the Far East. A key to the males of the *Pseudosmittia* species occurring in the Russian Far East is provided.

Material and Methods

Adults were collected mainly with sweep nets or in light traps and Malaise traps placed near rivers and streams; a few specimens were taken in emergence traps.

The material was preserved in 70% ethanol and Oudemans' solution, later mounted on slides in Berlese's fluid and euparal. The terminology follows Sæther [1980]. The measurements are given as ranges.

Holotype and paratypes of the new species and all other examined material are deposited in the Institute of Biology and Soil Sciences, Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia (IBSS FEBRAS).

KEY TO THE MALES OF *PSEUDOSMITTIA* EDWARDS OF THE RUSSIAN FAR EAST

1. Gonostylus bifurcate *P.mathildae* Albu
— Gonostylus simple 2
2. Hypopygium with pars ventralis (Fig. 4)
..... *P.bothnica* (Tuiskunen)
— Hypopygium without pars ventralis 3
3. Anteprenotum well developed, its lobes in contact medially 4
— Anteprenotum reduced, its lobes separated by a medial gap 7
4. SVo present. IVo a simple, roundish, low prominence covered by setae (Figs 22–23). AR 0.3
..... *P.holsata* Thienemann et Strenzke
— SVo absent. IVo simple or double; when simple it is a wide, rounded, elongate lobe covered by setae. AR 0.6–1.3 5
5. IVo with ventral part small and roundish (Figs 36–37). R_{2+3} ends near R_{4+5} . AR 0.6–0.84. 13th antennal flagellomere in apical part wide-roundish *P.oxoniana* (Edwards)
— IVo with ventral part large. R_{2+3} ends about half distance between R_1 and R_{4+5} . AR 1.12–1.28. Apical part of 13th flagellomere of different shape 6
6. Ventral part of IVo elongate-roundish. Virga without lateral spinules (Fig. 30). Apical part of 13th flagellomere roundish and covered with short setae *P.nanseni* (Kieffer)
— Ventral part of IVo roundish-rectangular. Virga with lateral spinules (Fig. 40). Apical part of 13th flagellomere elongate and covered with microtrichia (Fig. 42)
P.rutneri Strenzke et Thienemann
7. IVo consists of 3 parts 8
— IVo simple or double 9
8. Anal point present, situated centrally on tergite IX (Fig. 18) *P.forcipata* (Goetghebuer)
— Anal point absent (Fig. 44) *P.trilobata* (Edwards)
9. IVo double 10
— IVo simple 11
10. Anal point absent. Dorsal part of IVo apically claw-shaped, anterior lobe of ventral part commonly longer than posterior lobe (Figs 8–12) *P.danconai* (Marcuzzi)
— Anal point present. Dorsal part of IVo apically wide triangular, anterior lobe of ventral part shorter than posterior lobe (Fig. 1) *P.angusta* (Edwards)
11. Anal point absent. Tergite IX with median dark stripe from which 3–8 setae arise (Figs 5–7). AR 0.24–0.32
..... *P.brundini* sp.n.
— Anal point present. AR > 0.32 12
12. Virga long (47.5–65.0 μ m). R_{2+3} reduced. Tergite IX with 4–6 short setae around anal point which is situated at center of tergite (Figs 38–39)
..... *P.rostriformis* Makarchenko et Makarchenko
— Virga short (about 10 μ m). R_{2+3} developed. Anal point wide-triangular, reaching slightly beyond posterior margin of tergite IX, and with several short setae on its surface and margins (Fig. 32) *P.nishiharaensis* Sasa et Hasegawa

Pseudosmittia angusta (Edwards, 1929)

Fig. 1

Spaniotoma (*Smittia*) *angusta* Edwards, 1929: 364
Smittia (*Pseudosmittia*) *angusta* (Edwards); Goetghebuer, 1932: 127; 1943 in Goetghebuer, 1940–1950: 104.

Pseudosmittia angusta (Edwards); Brundin, 1956: 170, fig. 136; Strenzke, 1960: 427; Pankratova, 1970: 280; Pinder, 1978: 94, figS.46E, 137A; Langton & Pinder, 2007: 136, figS.70E, 186D; Makarchenko & Makarchenko, 2007: 305, fig. 25.

MATERIAL. Russian Far East. *Khabarovsk Region*: 1 ♂ — Devjatka River, Evoron Lake basin, Solnechnyi District, 13.VII.2006, leg. E. Makarchenko; 1 ♂ — Kadi River, Amur River basin, Ullchsky District, 13.VIII.2006, leg. N. Yavorskaya.

DIAGNOSIS. **Male imago** (n=2). Total length 1.4–1.6 mm. Total length/wing length 1.49–1.58. Coloration dark brown.

Head. Eyes naked, without dorsomedial extension. Temporal setae 5–7, including 3–5 inner verticals, 2 outer verticals. Clypeus with 6–7 setae. Antenna with 13 flagellomeres and well developed plume; 13th flagellomere with subapical seta and some sensitive hairs; AR 0.64–0.71. Lengths (μ m) of palpomeres — 20 : 32 : 56 : 60 : 92. Head width/palp length 0.53.

Thorax. Anteprenotum reduced, with lobes well separated. Acrostichals 2 (at mid-scutum, often in unpigmented area(s)), dorsocentrals 6–7, prealars 3. Scutellum with 4 setae.

Wing. Length 0.94–1.1 mm. Anal lobe truncated. Squama without setae. Venation typical for genus.

Legs. BR₁ 3.0, BR₂ 3.3, BR₃ 4.6. LR₁ 0.46, SV₁ 3.92–4.09, BV₁ 3.73–3.80. Spur of front tibia 40 μ m long. Both spurs of middle tibia 12 μ m long, of hind tibia 34 μ m and 12 μ m long. Hind tibial comb with 11 setae.

Hypopygium (Fig. 1). Tergite IX narrow, with 7–10 setae distributed around anal point. Anal point 18–20 μ m long, fully covered with microtrichia. Laterosternite IX with 3–4 setae. Transverse sternapodeme 68 μ m long, without oral projections. Virga consists of 2 setae 16–20 μ m long. Gonocoxite 104–132 μ m long. Inferior volsella with dorsal and ventral parts; dorsal part wide triangular and with some short setae, ventral part with short, nose-like lobe and narrow finger-shaped distal lobe. Gonostylus 44 μ m long, with 3–4 setae on inner side. Megaseta 8 μ m long.

REMARKS. Males from the Russian Far East have shorter total length and leg lengths and more developed anal lobe of wing than specimens from Europe.

DISTRIBUTION. Before the present finding in the Amur River basin of the Russian Far East, the species was known only from the West Palearctic [Strenzke 1960; Pankratova 1970; Ashe & Cranston 1990].

Pseudosmittia bothnica (Tuiskunen, 1984)

Figs 2–4

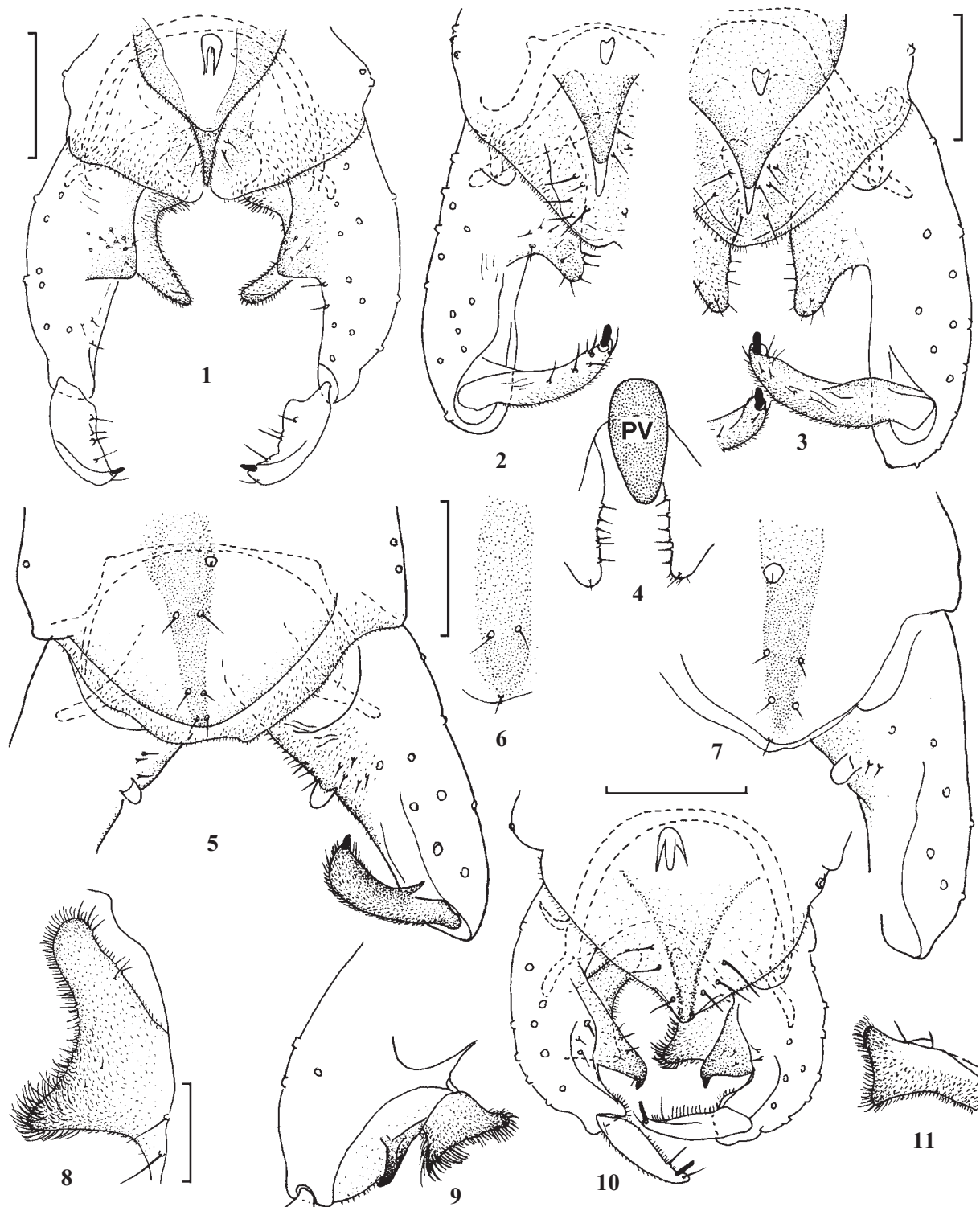
Lindebergia bothnica Tuiskunen, 1984: 121.

Pseudosmittia bothnica (Tuiskunen); Sæther & Ferrington, 2003: 3; Makarchenko & Makarchenko, 2007: 306, figS.26–29.

MATERIAL. Russian Far East. *Primorye Territory*, 1 ♂ — Samarga River, about 2 km upper of Unty Village, 6.VIII.1006, leg. O. Zorina; 1 ♂ — the same river in Chini Stream region, 7.VIII.2006, leg. O. Zorina. *Amursky Region*: 2 mature pupae, 4 larvae, Bureya River, lower of Kulikovka Village, 19.VII.2006, leg. T. Tiunova.

DIAGNOSIS. **Male imago** (n=2). Total length 1.9–2.1 mm. Total length/wing length 1.71–1.75. Coloration dark brown.

Head. Eyes naked, without dorsomedial extension. Temporal setae 5–7, including 2–3 short inner verticals, 0–1 outer vertical and 3 long postorbitals. Clypeus with 5–8 setae.



Figs 1–11. *Pseudosmittia* spp., male imagines: 1 — *P. angusta* (Edwards); 2–4 — *P. bothnica* Tuiskunen; 5–7 — *P. brundini* sp.n.; 8–11 — *P. danconai* (Marcuzzi) from Samarga River (8, 10) and Kedrovaya Pad' Nature reserve (9, 11); 1–3, 5, 7, 10 — hypopygium, from above; 4 — inferior volsellae and pars ventralis (PV); 6 — part of tergite IX with dark stripe; 8, 11 — ventral part of inferior volsella; 9 — dorsal and ventral parts of inferior volsella. Scale bars are as follows: Figs 1–7, 9–11 — 50 μ m, Fig. 8 — 20 μ m.

Рис. 1–11. *Pseudosmittia* spp., самец, имаго: 1 — *P. angusta* (Edwards); 2–4 — *P. bothnica* Tuiskunen; 5–7 — *P. brundini* sp.n.; 8–11 — *P. danconai* (Marcuzzi) из р. Самарга (8, 10) и заповедника "Кедровая падь" (9, 11); 1–3, 5, 7, 10 — общий вид гипопигия, сверху; 4 — нижние придатки гонококсита и *pars ventralis* (PV); 6 — часть тергита IX с продольной темной полосой; 8, 11 — вентральная часть нижнего придатка гонококсита; 9 — дорсальная и вентральная части нижнего придатка гонококсита. Масштабная линейка для рис. 1–7, 9–11 — 50 мкм, рис. 8 — 20 мкм.

Antenna with 13 flagellomeres and well developed plume; 13th flagellomere in distal part slightly enlarged, with pointed apex and without subapical seta. AR 0.90–0.91. Lengths (μm) of palpomeres — 20 : 32–40 : 56–60 : 48–64 : 72–76. Head width/palp length 0.63–0.64.

Thorax. Anteprepronotum well developed, with 0–1 lateral seta. Acrostichals 4–5 (at mid-scutum, aculeiform), dorsocentrals 5–6, prealars 3–4. Scutellum with 4 setae.

Wing. Grayish, thickly covered with microtrichia. Length 1.14–1.20 mm. Anal lobe slightly truncated. Squama without setae. R, R₁ and R₄₊₅ without setae. R₂₊₃ ends near apex of R₄₊₅, the latter situated opposite apex of M₃₊₄. C not beyond apex of R₄₊₅.

Legs. BR₁ 2.3, BR₂ 2.3, BR₃ 1.4. LR₁ 0.44–0.45, SV₁ 3.93–4.04, BV₁ 3.25–3.31. Spur of front tibia 30 μm long. Spurs of middle tibia 14 μm and 16 μm long, spurs of hind tibia 32 μm and 12 μm long. Hind tibial comb with 10 setae.

Hypopygium (Figs 2–4). Tergite IX not clearly delineated, with 10–16 setae distributed around anal point. Anal point 36 μm long, in apical part without microtrichia. Laterosternite IX with 4–5 setae. Transverse sternapodeme 52–56 μm long, oral projections weak, sometimes invisible. Virga like a small plate, 8–12 μm long. Gonocoxite 144–148 μm long. Inferior volsella shown in Figs 2, 3. Pars ventralis present between bases of inferior volsellae (Fig. 4). Gonostylus 60–76 μm long, with small subapical crista dorsalis and a few short setae. Megaseta 6–8 μm long.

REMARKS. *P.bothnica* was described from a single male from Finland [Tuiskunen, 1984]. Far-Eastern material has made it possible to diagnose the male in more detail and to describe the pupa and larva [Makarchenko & Makarchenko, 2007].

DISTRIBUTION. The species is known from Finland [Tuiskunen, 1984] and the Russian Far East (Amur River basin, North East part of Primorye Territory).

Pseudosmittia brundini
Makarchenko et Makarchenko, **sp.n.**
Figs 5–7

“Pseudosmittia” restricta Brundin, 1956; Makarchenko & Makarchenko, 2006b: 355, fig. 241, 3–5.

MATERIAL. Holotype: ♂ — Sporny Stream, Sikhote-Alin’ Biosphere Nature Reserve, Primorye Territory, Russian Far East, 5.VII.2006, leg. O. Zorina. Paratypes: *Primorye Territory*: 1 ♂ — same data as holotype; 1 ♂ — Zabolochennaya River, Sikhote-Alin’ Biosphere Nature Reserve, 22.VII.2004, leg. O. Zorina; 2 ♂♂ — Poima River, Khasansk region, 23.VI.2001, leg. E. Makarchenko. *Khabarovsk Territory*: 1 ♂ — Bykova River, Amur River basin, 20.VIII.2006, leg. N. Yavorskaya.

DESCRIPTION. **Male imago** (n=6, except where otherwise stated).

Total length 1.45–1.85 mm. Total length/wing length 1.45–1.6. Coloration: head and thorax dark brown, abdomen brown or brownish with lighter segments I–III, legs brown.

Head. Eyes naked, without dorsomedial extension. Temporal setae comprising 3–4 verticals, one pair of frontals

sometimes present. Clypeus with 5–14 setae. Antenna with 13 flagellomeres and partly reduced plume; 13th flagellomere darker in distal 2/3, without subapical seta but with some short setae; AR 0.25–0.27. Lengths (μm) of palpomeres — 10–16 : 18–32 : 24–32 : 20–24 : 28–36. Head width/palp length 2.73–3.1.

Thorax. Anteprepronotum with reduced lobes, without lateral setae. Acrostichals 2 on mid-scutum (situated in white spots), dorsocentrals 5, prealars 3. Scutellum without setae.

Wing. Length 1.0–1.3 mm, width 0.43–0.45. Anal lobe slightly reduced. Squama, R, R₁ and R₄₊₅ without setae. R₂₊₃ fused with R₄₊₅. R₄₊₅ ending proximal of M₃₊₄ but distal of Cu₁. Costa extending beyond R₄₊₅ by 52–100 μm . Cu₁ almost straight.

Legs. BR₁ 1.3–2.3, BR₂ 2.7–3.6, BR₃ 2.7–4.0. Fore tibia with 1 spur 20–28 μm long. Middle tibia with 1 spur 12–16 μm long. Hind tibia with 2 spurs 21–28 μm and 12 μm long. Hind tibial comb with 4–8 setae. Lengths (μm) and proportions of leg segments as in Table.

Hypopygium (Figs 5–7). Tergite IX without anal point but with dark brown longitudinal stripe 44–76 μm long, 20–24 μm wide, and with 2–6 short setae. Laterosternite IX with 2–3 setae. Transverse sternapodeme 64–76 μm long, with weak oral projections. Virga very small. Gonocoxite 112–124 μm long. Inferior volsella small, bubble-shaped, semi-transparent. Gonostylus 48–52 μm long, slightly curved, with apical megaseta.

DIAGNOSTIC CHARACTERS. See the key above and the following remarks.

REMARKS. *P.brundini* sp.n. appears to be closely related, possibly even identical to *P.restricta* Brundin which was described from a single male from Sweden [Brundin, 1956] and has not been recorded again. Sæther & Ferrington, 2003 could not find the holotype of *P.restricta* and treated the species name as a *nomen dubium*. In addition, they indicated that “the species cannot belong in *Pseudosmittia* if the description is correct; a distinct scutal hump is present and the genitalia differ from all other known species.” Brundin, 1956: 170 had called *P.restricta* a “very characteristic species that deviates rather strongly from the *Pseudosmittia* species known so far.” Following these opinions and a discussion with Prof. O.A. Sæther, we placed our material as “*Pseudosmittia” restricta* Brundin in the Far-Eastern chironomid key book [Makarchenko & Makarchenko, 2006b]. Since then, we have obtained additional specimens and analyzed the males in more detail. They differ from Brundin’s [1956] description by brown rather than whitish legs, the absence of a scutal tubercle (or a tuft that Brundin might have perceived as a “hump”), presence of 2 short setae on mid-scutum, presence of a costal extension, and by Cu₁ being almost straight rather than strongly curving. In light of these differences and the large geographic distance between Sweden and Far Eastern Russia, we consider it the most sensible to describe our material under a new name, abstaining from reinterpreting *P.restricta* until it is found again near its type locality.

Table.
Length (μm) and proportions of leg segments of *Pseudosmittia brundini* sp.n., male (n=4)
Таблица.
Длина члеников ног (мкм) и их индексы самца *Pseudosmittia brundini* sp.n. (n=4)

P	f	t	ta ₁	ta ₂	ta ₃	ta ₄	ta ₅	LR	SV	BV
P ₁	184–264	246–336	92–128	48–76	44–56	32–50	36–48	0.37–0.38	4.67–4.89	2.93–3.55
P ₂	348–480	332–464	136–192	80–112	68–80	44–48	44–48	0.41–0.42	4.82–5.00	3.46–4.99
P ₃	260–368	292–396	112–152	60–84	48–64	32–44	36–48	0.37–0.38	4.92–5.15	3.60–3.95

DISTRIBUTION. The species is known from Primorye and Khabarovsk Territories of the Russian Far East.

ETYMOLOGY. Named in memory and honor of the famous Swedish chironomidologist and hydrobiologist, Prof. Lars Brundin.

Pseudosmittia danconai (Marcuzzi, 1947)
Figs 8–13

Smittia danconai Marcuzzi, 1947: 12.

Smittia hamata Freeman, 1956: 358; Sæther & Ferrington, 2003: 4.

Pseudosmittia hamata Strenzke, 1960: 433.

Pseudosmittia neohamata Cranston in Ashe & Cranston, 1990: 223, replacement name for *P. hamata* Strenzke; Makarchenko et al., 2005: 406).

Pseudosmittia jintuvicesima Sasa, 1996b: 72; Yamamoto, 2004: 88.

Pseudosmittia seiryupequea Sasa, Suzuki et Sakai, 1998: 117; Yamamoto, 2004: 89.

Pseudosmittia danconai (Marcuzzi); Sæther, 2006: 28; Makarchenko & Makarchenko, 2006b: 355, fig. 240, 3–6; 2007: 309, figs 30–32.

MATERIAL. Russian Far East. *Sakhalin Island*: 2 ♂♂ — Tym' River, middle stream, 10.VII.1985, leg. E. Makarchenko. *Primorye Territory*: 3 ♂♂ — Kedrovaya River, Kedrovaya Pad' Biosphere Nature Reserve, Khasansk District, 21.VIII.2004, leg. E. Makarchenko; 4 ♂♂ — Samarga River, about 2 km upper of Unty Village, Terneisky District, 6.VIII.2006, leg. O. Zorina; 1 ♂ — the same river, 20.VIII.2005, leg. K. Semenchenko. *East Siberia. Chitinsky Region*: 1 ♂ — Nercha River, upper of Znamenka Village, Amur River basin, 27.VII.2005, leg. T. Tiunova.

The male of *P. danconai* has been described completely by Strenzke [1960], Sæther [2006], and Makarchenko & Makarchenko [2007]; therefore we add only some features which are distinctive for Far-Eastern specimens.

DIAGNOSIS. Male imago (n=5). Specimens from Samarga River in the northern part of Primorye Territory have a longer anterior lobe of the inferior volsella (Figs 8, 10, 12–13) than specimens from other Far-Eastern and Palaearctic regions (Figs 9, 11). Total length of males from Samarga River: 1.2–1.3 mm. AR 0.74–0.79. LR₁ 0.43–0.50. Hypopygium as in Figs 10, 12–13.

DISTRIBUTION. A Holarctic species also known from South Africa [Sæther, 2006]. In Russia known only from the Far East and East Siberia.

Pseudosmittia forcipata (Goetghebuer, 1921)
Figs 14–21

Camptocladus forcipatus Goetghebuer, 1921: 87.

Smittia triappendiculata Goetghebuer, 1931: 216; Sasa, 1985: 124; Sæther & Ferrington, 2003: 4.

Smittia (Pseudosmittia) forcipata (Goetghebuer); Goetghebuer, 1943 in Goetghebuer, 1940–1950: 106.

Pseudosmittia forcipata (Goetghebuer); Pinder, 1978: 94; Cranston & Oliver, 1988: 450; Sæther, 2006: 29; Makarchenko & Makarchenko, 2006b: 355, fig. 240, 7; Langton & Pinder, 2007: 136, figS.70D, 186C.

Pseudosmittia antillaria Sæther, 1981: 29; Sæther & Ferrington, 2003: 3.

Pseudosmittia mongolzeaea Sasa et Suzuki, 1997: 185.

MATERIAL. Russian Far East. *Magadansky Region*: 1 ♂ — Motykleika River, Okhotsk Sea coast, 13.VII.1977, leg. E. Makarchenko; 1 ♂ — Halkindzga River, Tau River basin, Okhotsk Sea coast, 27.VI. 2002, leg. E. Khamenkova. *Sakhalin Island*: 1 ♂ — Tym' River, Tymovsky District, 8.VIII. 2001, leg. E. Makarchenko. *Khabarovsk Territory*: 1 ♂ — Yai River, Amur River basin, 30.VII. 2005, leg. E. Makarchenko; 1 ♂ — Kadi River, Ulchsky District, 22.VI. 2006, leg. N. Yavorskaya; 2 ♂♂ — unnamed stream of Amur River basin (low stream) in Nikolaevsk District, 30.VI.2006, leg. N. Yavorskaya. *Primorye Territory*: 1 ♂ — Zaria Lake, Lazovsky Nature Reserve, 5.VII. 2007, leg. O. Zorina.

The male of *P. forcipata* has been described completely by Sæther [1981], Cranston & Oliver [1988] and Langton & Pinder [2007]; therefore we add only some features which are distinctive for Far-Eastern specimens.

DIAGNOSIS. Male imago (n=5). Total length 1.5–1.8 mm. Wing length 1.03–1.3. Head with 1–4 inner verticals, 2–3 postorbitals; outer verticals absent. AR 0.78–1.1. LR₁ 0.46–0.48, LR₂ 0.48–0.53, LR₃ 0.53–0.59. Hypopygium, including variation in details among Far Eastern regions, as in Figs 14–21.

DISTRIBUTION. The species is widely distributed throughout the Holarctic region, and also known from the Neotropical and Oriental regions [Sæther 2006]. In Russia, before the present finding in the Far East the species was known from the northeastern European part only [Kuzmina, 2001; Kuzmina et al., 2003].

Pseudosmittia holsata Thienemann et Strenzke, 1940
Figs 22–23

Pseudosmittia holsata Thienemann et Strenzke, 1940: 238; Pankratova, 1970: 282; Sæther, 2006: 31; Makarchenko & Makarchenko, 2006b: 355, fig. 240, 8–10; Langton & Pinder, 2007: 136.

Pseudosmittia hachijotertia Sasa, 1994: 48; Yamamoto, 2004: 87. **MATERIAL.** Russian Far East. *Magadansky Region*: 1 ♂ — Chelomdzha River, Tau River basin, Okhotsk Sea coast, 14.VII.2001, leg. S.Kocharina. *Khabarovsk Territory*: 1 ♂ — unnamed stream of Amgun' River basin (middle stream), Amur River basin, Polina Osipenko District, 20.VII. 2006, leg. E. Makarchenko; 1 ♂ — the same region as above, small lake near Briakan Village, 21.VII. 2006, leg. E. Makarchenko.

The male of *P. holsata* has been described completely by Thienemann & Strenzke [1940] and Sæther [2006]; therefore we add only some features which are distinctive for Far-Eastern specimens.

DIAGNOSIS. Male imago (n=2). Total length 1.7–1.9 mm. Head without verticals, 3–4 postorbitals. AR 0.23–0.28. LR₁ 0.43, LR₂ 0.43–0.45, LR₃ 0.45–0.51. Hypopygium as in Figs 22–23.

DISTRIBUTION. The species is known from Austria, Germany, the Far Eastern Palaearctic (China, Japan, Amur River basin and Okhotsk Sea coast), and from the USA [Sæther, 2006; Makarchenko & Makarchenko, 2006b].

Pseudosmittia mathildae Albu, 1968
Figs 24–29

Pseudosmittia mathildae Albu, 1968: 4; Sæther, 2006: 36; Makarchenko & Makarchenko, 2006b: 355, Fig. 210, 3–9.

Pseudosmittia itachibifurca Sasa et Kawai, 1987: 54; Yamamoto, 2004: 87.

Pseudosmittia amamibifurca Sasa, 1990: 132; Sæther & Ferrington, 2003: 3; Yamamoto, 2004: 87, as syn. of *P. itachibifurca*.

Pseudosmittia trilobata Edwards, 1929: 364; Langton, 1991: 173, pro parte, misidentification.

Pseudosmittia hibaribifurca Sasa, 1993: 80; Yamamoto (2004: 88, as syn. of *P. itachibifurca*).

Pseudosmittia furudobifurca Sasa et Arakawa, 1994: 100; Yamamoto, 2004: 88, as syn. of *P. itachibifurca*.

Pseudosmittia (Nikismittia) shofukuundecima Sasa, 1998: 42; Yamamoto, 2004: 88, as syn. of *P. itachibifurca*.

Diplosmittia amamibifurca (Sasa); Sæther et al., 2000: 185.

Diplosmittia furudobifurca (Sasa et Arakawa); Sæther et al., 2000: 185.

Diplosmittia hibarabifurca (Sasa); Sæther et al., 2000: 185.

Diplosmittia itachibifurca (Sasa); Sæther et al., 2000: 185.

Diplosmittia shofukuundecima (Sasa); Sæther et al., 2000: 185.

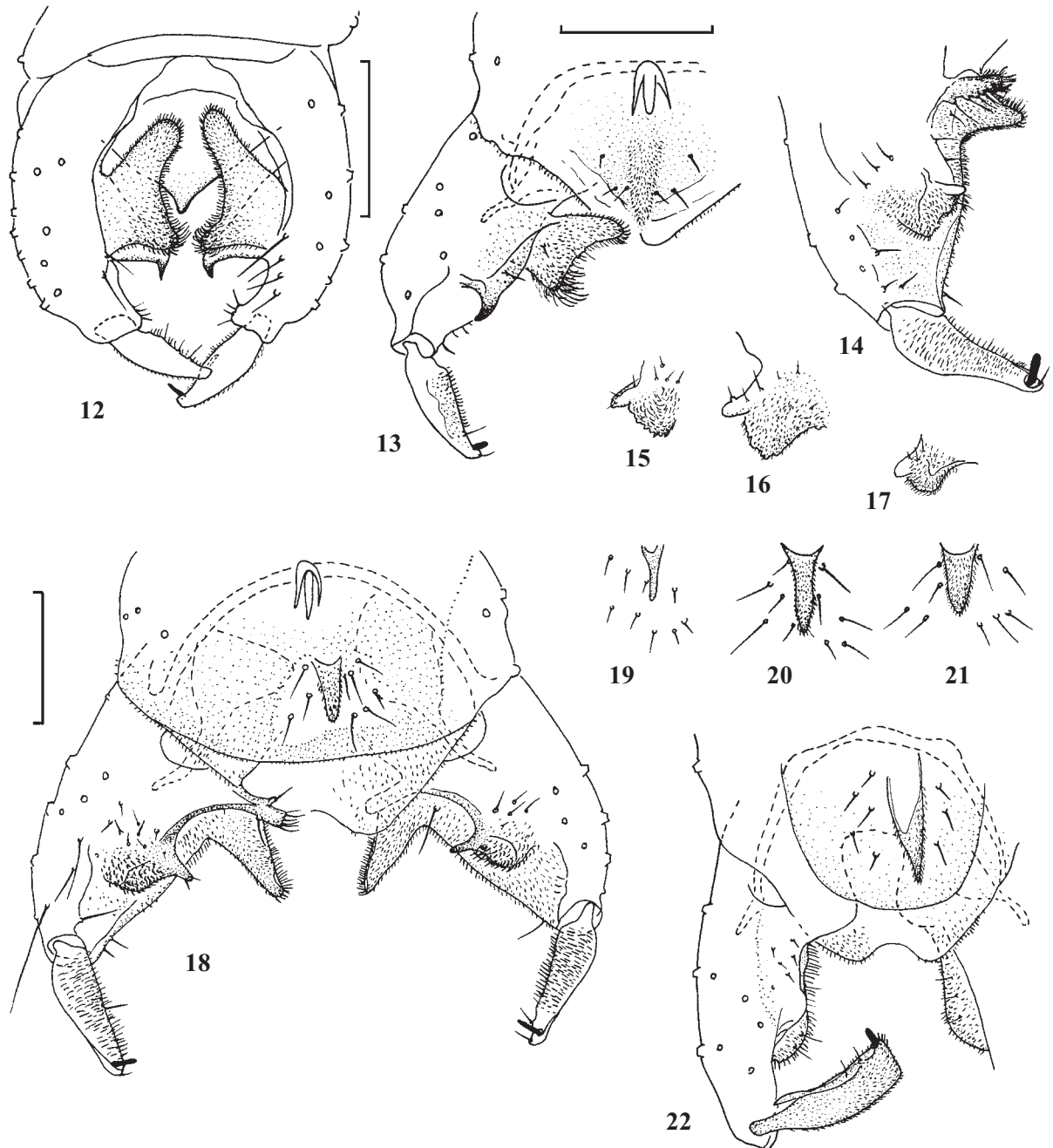
Diplosmittia sasai Makarchenko et Makarchenko, 2005: 375.

Syn. nov.

MATERIAL. Russian Far East. *Primorye Territory*: 1 ♂ — Rjazanovka, River, Khasansk District, 20.V. 2003, leg. T. Arefina; 2 ♂♂ — Ilistaya River, near Lialichi Village, 7.VIII. 2004, leg. T. Arefina; 1 ♂ — Samarga River, about 2 km uoer of Unty Village, Terneisky District, 6.VIII. 2006, leg. O. Zorina. *Khabarovsk Territory*: 1 ♂ — Khingan River, about 2 km upper of Obluchie Village, Jewish Autonomous Region, 26.VI. 2004, leg. T. Tiunova; 1 ♂ — Yai River (middle stream), 1.VIII. 2005, leg. E. Makarchenko; 1 ♂

— Machtovaya River, 6.VIII. 2005, leg. E. Makarchenko; 1 ♂ — unnamed stream of Amgun' River basin (middle stream), Polina Osipenko district, 20.VII. 2006, leg. E. Makarchenko; 1 ♂ — the same district as above, small lake near Briakan Village, 21.VII. 2006, leg. E. Makarchenko. *Amursky Region*: 1 ♂ — Zeiskoe Water Reservoir, Solomatinsky Bay, 21.VII. 2004, leg. T. Tiunova.

The male has been characterised by Albu [1968] and Makarchenko & Makarchenko [2005], and will be redescribed in a world-wide revision of *Pseudosmittia* by Sæther [in prep.]. Below we add some features which are distinctive for Far-Eastern specimens.



Figs 12–22. *Pseudosmittia* spp., male imagines: 12–13 — *P. danconai* (Marcuzzi) from Samarga River (12) and Lazovsky Nature reserve (13); 14–21 — *P. forcipata* Goetghebuer from Amur River basin of Khabarovsk Territory (14–17, 19–21), Lazovsky Nature Reserve (18); 22 — *P. bolsata* Thienemann et Strenzke from Amur River basin of Khabarovsk Territory (22); 12 — hypopygium, from below; 13, 18, 22 — hypopygium, from above; 15–17 — dorsal posterior part of inferior volsella; 19–21 — anal point; 14 — gonocoxite and gonostylus. Scale bars are 50 μ m.

Рис. 12–22. *Pseudosmittia* spp., самец, имаго: 12–13 — *P. danconai* (Marcuzzi) из р. Самарга (12) и Лазовского заповедника (13); 14–21 — *P. forcipata* Goetghebuer из бас. р. Амур Хабаровского кр. (14–17, 19–21), Лазовского заповедника (18); 22 — *P. bolsata* Thienemann et Strenzke из бас. р. Амур Хабаровского кр.; 12 — общий вид гипопигия, снизу; 13, 18, 22 — общий вид гипопигия, сверху; 15–17 — дорсальная задняя часть нижнего придатка гонококсита; 19–21 — анальный отросток; 14 — гонококсит и гоностиль. Масштабная линейка 50 мкм.

DIAGNOSIS. **Male imago** (n=3). Total length 1.4–1.5 mm. Head only with 2–3 verticals and 5–6 clypeals. Antenna with 13 flagellomeres, without subapical seta. AR 0.58–0.71. Palpomere lengths (in μm) — 16: 24–28 : 48–54 : 56–60 : 80–88.

Thorax. Anteprenotum not reduced, with 2–4 lateral setae. Acrostichals 2 (at mid-scutum), dorsocentrals — 7–9, prealars — 3.

Wing. Length 0.99–1.04 mm. All veins without setae. Anal lobe reduced. Squama without setae. Postcubital fork absent.

Legs. BR₁ 1.8; BR₂ 3.0; BR₃ 4.3. LR₁ 0.39–0.41, SV₁ 4.31–4.50, BV₁ 4.04–4.26. t₁ with 1 spur (24 μm), t₂ with 2 spurs (8–12 μm and 8–12 μm), t₃ with 2 spurs (24–28 μm and 8–12 μm) and comb of 10–11 setae.

Hypopygium (Figs 24–29). Anal point short, triangular, can be reduced to a pigmented pore, surrounded by 5–6 setae. Gonostylus bifurcate, inner branch short and wide, distinctly pectinate in apical part, outer branch with long megaseta (11.9 μm) and with 2–3 simple setae of even length at apex. Virga short.

DISTRIBUTION. The species is known from Austria, southern Germany, northern Italy, Romania, China, Japan (including Nansei Archipelago), the Russian Far East and in the USA from Alabama, Georgia and South Carolina [Sæther, 2006; Makarchenko & Makarchenko, 2006b].

Pseudosmittia nanseni (Kieffer, 1926)

Figs 30–31

Psectrocladius nanseni Kieffer, 1926: 82.

Prosmittia nanseni (Kieffer); Oliver, 1963: 177; Sæther et al., 1984: 270, fig. 12.

Pseudosmittia nanseni (Kieffer); Cranston & Oliver, 1988: 451; Makarchenko & Makarchenko, 2006b: 355, Fig. 240, 11.

MATERIAL. Russian Far East. *Primorye Territory*: 1 ♂ — Barabashevka River, Khasansk District, 5.V. 1974, leg. L. Zhiltsova; 1 ♂ — Lotos Lake, the same district as above, 26.V. 1998, leg. E. Makarchenko; 2 ♂♂ — Tumannaya River, the same district as above, 25.VI. 1998, leg. E. Makarchenko; 3 ♂♂ — Poima River, the same district as above, 23.VI. 2001, leg. E. Makarchenko; 1 ♂ — Rjazanovka River, the same district as above, 7.VI. 2003; 1 ♂ — Komarovka River, Ussuryyskiy District, 2.VII. 1998, leg. T. Vshivkova; 1 ♂ — Khanka Lake, 11.VI. 1998, leg. T. Vshivkova, O. Zorina; 1 ♂ — small unnamed pond in about 10 km to South from Khorol' Village, Khorolskiy District, 16.VI. 1999, leg. E. Makarchenko. *Khabarovsk Territory*: 1 ♂ — Tatarka River, Ul'chskiy District, 19.VI. 2005, leg. T. Tiunova. *Sakhalin Island*: 2 ♂♂ — Peschanoe Lake in Chaivo Bay region, 28.VIII. 2001, leg. T. Tiunova. *Magadansky Region*: 1 ♂ — Khishnikov River, Vrangeliy Island, 17.VIII. 1978, leg. E. Makarchenko.

The male of *P. nanseni* has been described completely by Sæther et al. [1984] and Cranston & Oliver [1988]; therefore we add only some features which are distinctive for Far-Eastern specimens.

DIAGNOSIS. **Male imago** (n=3). Total length 1.9–3.0 mm. Head with 0–2 inner verticals, 2–6 postorbitals. AR 1.26–1.8. LR₁ 0.41–0.44, LR₂ 0.39–0.43, LR₃ 0.49–0.50. Acrostichals 2–6 on mid-scutum. Hypopygium as in Figs 30–31.

REMARKS. Cranston & Oliver (1988) recorded variation in some features of the male among various regions of North America, namely in body and wing length, the anal point and AR. The same variation we found in specimens from the Russian Far East, but all analysed males had only short anal points 28–36 μm long.

DISTRIBUTION. Before the present finding in the Far East the species was known from the northeastern part of European Russia [Kuzmina, 2001; Kuzmina et al., 2003] and from North America [Oliver et al., 1990].

Pseudosmittia nishiharaensis Sasa et Hasegawa, 1988

Fig. 32

Pseudosmittia nishiharaensis Sasa et Hasegawa, 1988: 247; Yamamoto, 2004: 89; Sæther, 2006: 39; Makarchenko & Makarchenko, 2006b: 355, fig. 241, 1.

Pseudosmittia linguata Caspers et Reiss, 1989: 128; Sæther & Ferrington, 2003: 5.

Pseudosmittia yakymenea Sasa et Suzuki, 2000a: 92; Yamamoto, 2004: 90.

Pseudosmittia yakyneoa Sasa et Suzuki, 2000a: 93; Yamamoto, 2004: 90.

MATERIAL. Russian Far East. *Primorye Territory*: 2 ♂♂ — Tzaplichie Lake near Perevoznaya Village, Khasansk District, 20.VIII. 2004, leg. E. Makarchenko.

The male of *P. nishiharaensis* has been described completely by Sasa & Hasegawa [1988] and will be redescribed in a world-wide revision of *Pseudosmittia* by Sæther [in prep.]. Below we add only some features which are distinctive for Far-Eastern specimens.

DIAGNOSIS. **Male imago** (n=2). Total length 1.4 mm. Wing length 0.8–0.95. Head with 1–2 inner verticals, 1–3 postorbitalS. AR 0.81–0.87. LR₁ 0.49–0.50, LR₂ 0.51–0.53, LR₃ 0.56. t₂P₂ with 1 spur. Anteprenotal lobes well separated. Acrostichals 2 on mid-scutum. Hypopygium as in Fig. 32, with wide, triangular anal point which reaches beyond the posterior margin of tergite IX.

DISTRIBUTION. The species is known from Italy, Turkey, China, Japan (including Indo-Pacific areas), Thailand [Yamamoto, 2004; Sæther, 2006] and from the southern part of the Russian Far East [Makarchenko & Makarchenko, 2006b].

Pseudosmittia oxoniana (Edwards, 1922)

Figs 33–37

Camptocladus oxonianus Edwards, 1922: 204.

Spaniotoma (Smittia) recta Edwards, 1929: 362; Sæther & Ferrington, 2003: 4.

Not *C. oxonianus* Edwards sensu Edwards, 1937: 146, misidentification (= *P. rutneri*).

Pseudosmittia schachtii Caspers et Reiss, 1989: 130, pro parte (paratype, not holotype).

Pseudosmittia kurobeokasia Sasa et Okazawa, 1992a: 57; Yamamoto, 2004: 89.

Pseudosmittia togarisea Sasa et Okazawa, 1992b: 160; Sæther & Ferrington, 2003: 4; Yamamoto, 2004: 78 as *Prosmittia*.

Pseudosmittia hachijosecunda Sasa, 1994: 47; Yamamoto, 2004: 87.

Pseudosmittia toyamaresea Sasa, 1996a: 39; Yamamoto, 2004: 89.

Pseudosmittia yakyoepa Sasa et Suzuki, 2000a: 94; Yamamoto, 2004: 90.

Pseudosmittia yakypequea Sasa et Suzuki, 2000a: 94; Yamamoto, 2004: 90.

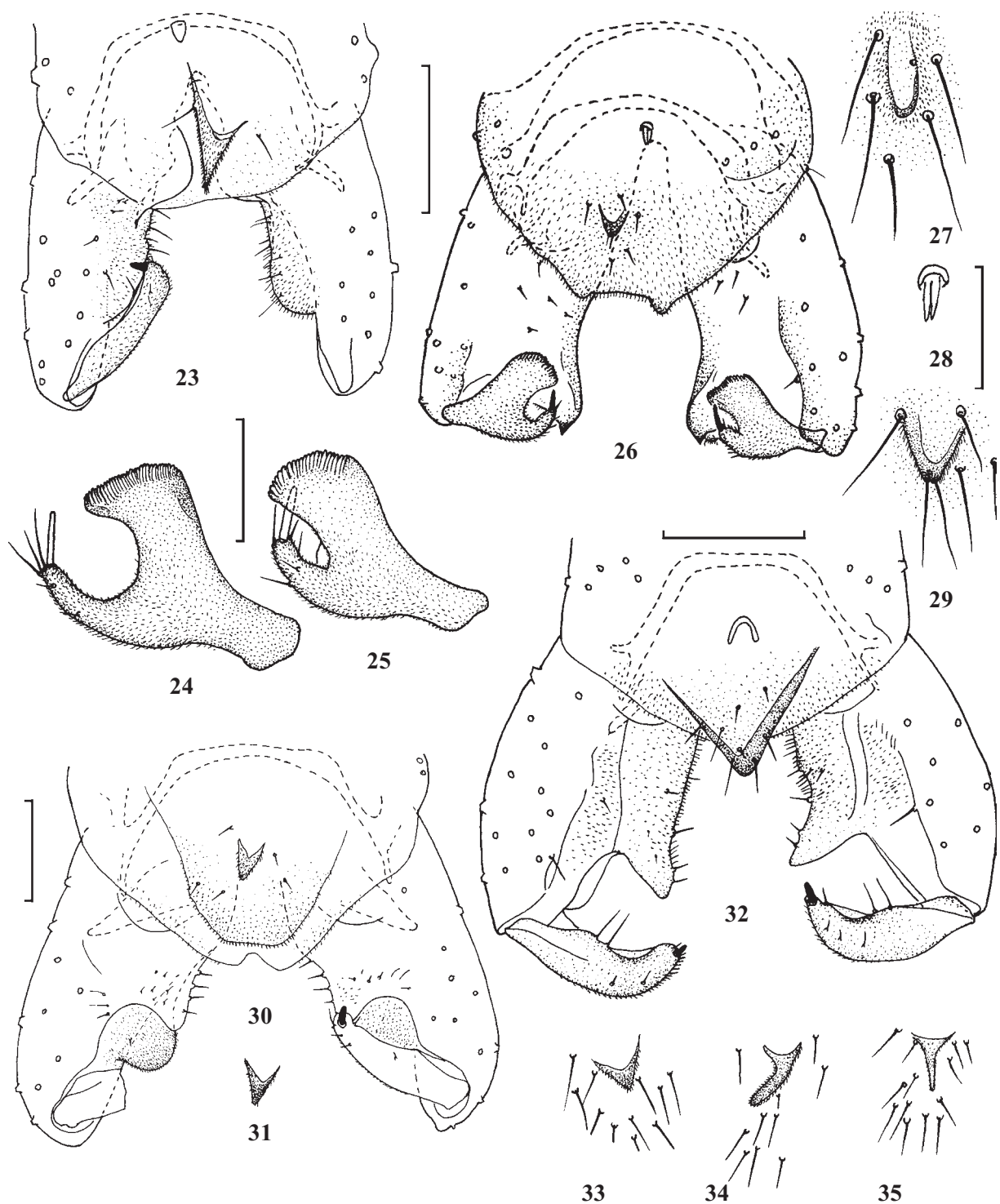
Pseudosmittia oxoniana (Edwards); Sæther, 2006: 40; Makarchenko & Makarchenko, 2006b: 355, fig. 241, 2; Langton & Pinder, 2007: 137, figs. 71 A, 187 B.

Parakiefferiella hidakagehea Sasa et Suzuki, 2000: 188; Yamamoto, 2004: 87 as *Pseudosmittia*.

Parakiefferiella hidakaheia Sasa et Suzuki, 2000: 189; Yamamoto, 2004: 87 as *Pseudosmittia*.

Description of the male was given by Edwards [1922], diagnostic characters by Sæther [2006] and will be redescribed in a world-wide revision of *Pseudosmittia* by Sæther [in prep.]. Below we adduce only some features which are distinctive for Far-Eastern specimens.

MATERIAL. Russian Far East. *Primorye Territory*: 1 ♂ — Kaskadny Stream, Kedrovaya Pad' Biosphere Natural Reserve, Khasansk District, 1.VIII. 1999, leg. E. Makarchenko; 1 ♂ — Rjazanovka River, the same district as above, 23.IV. 2004, leg. E. Makarchenko. *Khabarovsk Territory*: 1 male in pupa, Tuyun River, Bureya River basin, 17.III. 2003, leg. E. Makarchenko; 2 ♂♂ — Chernaya River, Ul'chskiy District, 3.VIII. 2005, leg. E. Makarchenko; 1 ♂ — Sonakh River, Amgun' River basin, 19.VII.



Figs 23–35. *Pseudosmittia* spp., male imagines: 23 — *P. bolsata* Thienemann et Strenzke from Amgun'River basin; 24–29 — *P. matildae* Albu, 30–31 — *P. nanseni* Kieffer; 32 — *P. nishibaraensis* Sasa et Hasegawa; 33–35 — *P. oxoniana* Edwards from Ketoi Island of Kurile Islands (33, 35) and Bureya River of Amur River basin (34); 23, 26, 30, 32 — hypopygium, from above; 24–25 — gonostylus; 27, 29, 31, 33–35 — anal point; 28 — virga. Scale bars are as follows: Figs 23, 26–35 — 50 μ m, Figs 24–25 — 20 μ m.

Рис. 23–35. *Pseudosmittia* spp., самец, имаго: 23 — *P. bolsata* Thienemann et Strenzke из бас. р. Амгунь, 24–29 — *P. matildae* Albu, 30–31 — *P. nanseni* Kieffer; 32 — *P. nishibaraensis* Sasa et Hasegawa; 33–35 — *P. oxoniana* Edwards с о-ва Кетой (Курильские острова) (33, 35) и р. Буряя (бас. р. Амур) (34); 23, 26, 30, 32 — общий вид гипопигия, сверху; 24–25 — гоностиль; 27, 29, 31, 33–35 — анальный отросток; 28 — вирга. Масштабная линейка для рис. 23, 26–35 — 50 мкм, рис. 24–25 — 20 мкм.

2006, leg. E. Makarchenko. *Amursky Region*: 1 ♂ — Bureya River, lower of Kulikovka Village, 12.VI. 2004, leg. T. Arefina; 1 male Zeya River, 20.VIII. 2004, leg. T. Arefina. *Magadansky Region*: 1 ♂ — unnamed stream near Ushakovsky Village, Vrangel Island, 2.VII. 1979, leg. E. Makarchenko; 1 ♂ — Nasha River, Vrangel Island, 2.VII. 1979, leg. E. Makarchenko; 2 ♂♂ — Tau River, Okhotsk Sea coast, 6.VI. 2001, leg. S.Kocharina. *Sakhalin Island*: 2 ♂♂ — small unnamed stream in Val River basin, Nogliksky District, 28.VII. 2002, leg. V. Teslenko. *Moneron Island*: 2 ♂♂ — Bol'shoi Stream, Chuprova Bay, 23–24.VIII. 2004, leg. E. Makarchenko. *Kurile Islands*: 27 ♂♂ — unnamed stream in Kitoboinaya Bay, Simushir Island, 10–11.VIII. 1995, leg. P.Oberg; 2 ♂♂ — Ketoi Island, 19.VIII. 1995, P.Oberg; 12 ♂♂ — Brouton Island, 23.VIII. 1995, leg. V. Teslenko; 2 ♂♂ — Lopukhovaya River, Urup Island, 29.VIII. 1995, leg. P.Oberg.

DIAGNOSIS. Male imago (n=3). Total length 1.75–2.55 mm. Wing length 1.0–1.41. Head with 1 inner vertical, 3–4 postorbital. AR 0.53–0.84. LR₁ 0.42–0.49, LR₂ 0.42–0.51, LR₃ 0.50–0.55. Anal point length 15.0–22.5 µm. Hypopygium as in Figs 33–37.

DISTRIBUTION. The species is known from Austria, France, Great Britain, Greece, The Netherlands, Norway (including Bear Island), Sweden, Turkey, China, Japan (including Pacific areas), the Northwest Territories of Canada, Greenland and the USA (South Dakota) [Sæther, 2006]. Before the present finding in the Far East it was known in Russia from the upper reaches of the Volga River basin [Shilova & Zelentsov, 2003] and from Arctic East Siberia [Zelentsov & Shilova, 1996].

Pseudosmittia rostriformis
Makarchenko et Makarchenko, 2006
Figs 38–39

Pseudosmittia rostriformis Makarchenko et Makarchenko, 2006a: 88, figs. 15–18; Makarchenko & Makarchenko, 2006b: 355, fig. 241, 6–9.

MATERIAL. Russian Far East. *Primorye Territory*: 1 ♂ — Verhnia Perevalovka River, Khasansk District, 5.VIII. 1999, leg. E. Makarchenko; 4 ♂♂ — Tretie Lake, Sikhote-Alin' Biosphere Nature Reserve, Terneisky District, 25.VII. 2004, leg. O. Zorina.

DIAGNOSIS. Male imago (n=3). Total length 1.3–1.5 mm. TL/WL 1.49–1.65.

Head with 2–3 verticals, 1–2 postorbitals, 2–3 clypeals. Antenna with 13 flagellomeres, apical flagellomere length 210–260 µm, subapical part enlarged, with roundish apex. AR 0.71–0.86. Palpomere lengths (in µm) (n=1) — 15 : 18 : 35 : 35 : 43. Head width/palp length 1.99.

Thorax. Anteprenotum with reduced lobes which do not touch in the middle, without anteprenotals. Acrostichals 2 (at mid-scutum), dorsocentrals 5, prealars 2, scutellars 2–3.

Wing. Length 0.85–0.97 mm. R₂₊₃ reduced and invisible, costa without extension, anal lobe reduced but wing not cuneiform, without postcubital fork. Squama without setae.

Legs. BR₁ 2.0; BR₂ 2.0; BR₃ 2.3. LR₁ 0.44, SV₁ 3.94–4.0, BV₁ 3.38. ta₁–ta₄ of middle and hind legs in apical part with 1 pseudospur, t₁ with 1 spur (25 µm), t₂ with 2 equal spurs (10 µm), t₃ with 2 spurs (25 µm and 10 µm) and comb of 10 setae (15.0–22.5 µm).

Hypopygium (Figs 38–39). Tergite IX with 4–6 setae around anal point. Anal point 25 µm long, darker than tergite IX, nose-shaped in lateral view. Gonocoxite length 130–138 µm; inferior volsella sharply triangular with apical rostral projection, inner margin of volsella covered with short setae. Transverse sternapodeme length 63–65 µm. Gonostylus length 58–63 µm. Virga consisting of a very large, U-shaped spine 48–65 µm long.

DISTRIBUTION. The species is known only from Pri-

morye Territory of the Russian Far East.

Pseudosmittia ruttneri Strenzke et Thienemann, 1942
Figs 40–42

Smittia oxoniana Edwards, 1922: 204; Edwards, 1937: 146, misidentification.

Pseudosmittia ruttneri Strenzke et Thienemann, 1942: 357; Strenzke, 1950: 297; Pankratova, 1970: 286; Makarchenko & Makarchenko, 2006b: 355, fig. 241, 10.

Pseudosmittia brevitarsis Brundin, 1947: 40.

Pseudosmittia schachtii Caspers et Reiss, 1989: 130.

Pseudosmittia kurobaokasia Sasa et Okazawa, 1992a: 57.

MATERIAL. Russian Far East. *Magadansky Region*: 1 ♂ — Seutakan Lake, Chukotski Peninsula, 14.VII. 1976, leg. E. Makarchenko; 1 ♂ — Tytyl' Lake of Maly Anyui River basin, Kolyma River basin, 12.VII. 2005, leg. I. Zasyplina. *Amursky Region*: 1 ♂ — Zeya River, 20.VI. 2004, leg. T. Tiunova.

Description of male is given by Strenzke & Thienemann [1942] and Strenzke [1950]. Some variation is added based on the males from the Russian Far East.

DIAGNOSIS. Male imago (n=3). Total length 2.2–3.2 mm. Wing length 1.45–1.75. Head without verticals, only with 5–6 postorbitals. Antenna with 13 flagellomeres, apical flagellomere enlarged in subapical part, with steeple-shaped apex. AR 1.13–1.27. LR₁ 0.41, LR₂ 0.43–0.49, LR₃ 0.49–0.51. Hypopygium as in Figs 40–41. Virga with lateral spinules.

DISTRIBUTION. Palaearctic species. Before the present finding in the Russian Far East, *P. ruttneri* was known only from Europe [Ashe & Cranston, 1990].

Pseudosmittia trilobata (Edwards, 1929)
Figs 43–44

Smittia trilobata Edwards, 1929: 364; Goetghebuer, 1943 in Goetghebuer, 1940–1950: 110.

Pseudosmittia obtusa Strenzke, 1960; Makarchenko & Makarchenko, 2005: 406, misidentification.

Pseudosmittia trilobata Edwards; Thienemann & Strenzke, 1940: 241, fig. 6; Strenzke, 1950: 299; Pankratova, 1970: 282; Makarchenko & Makarchenko, 2006b: 355, fig. 241, 11; Langton & Pinder, 2007: 136, Figs. 70F.

MATERIAL. Russian Far East. *Primorye Territory*: 1 ♂ — Tzaplichie Lake near Perevoznaya Village, 5.VIII. 1999, leg. E. Makarchenko. *Sakhalin Island*: 4 ♂♂ — Mereya River, Korsakovsky District, 7.VIII. 2002, leg. N. Minakawa.

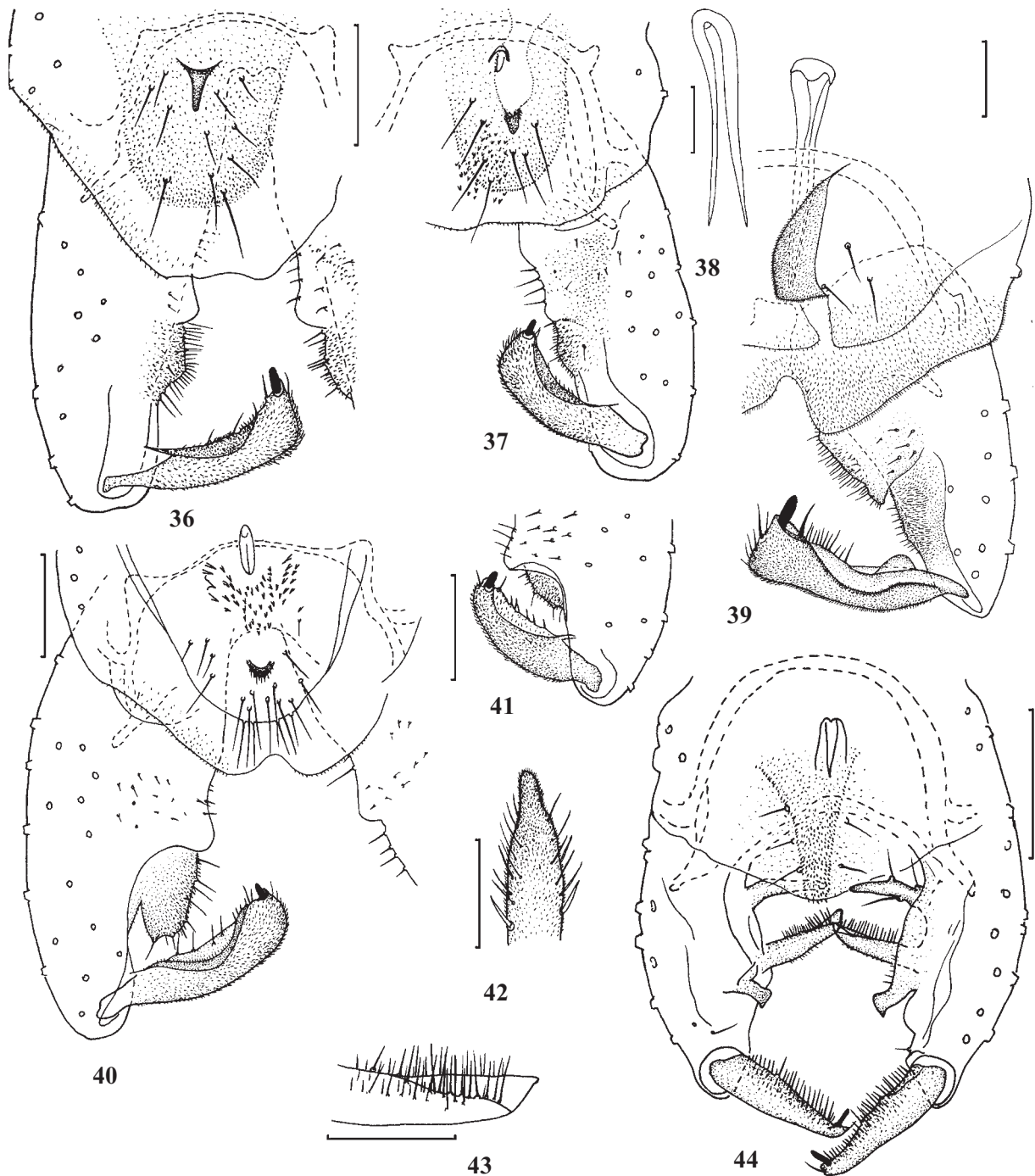
Descriptions of the male have been given by Thienemann & Strenzke [1940], Strenzke [1950] and Langton & Pinder [2007]. Some data on variation is added based on the males from the Russian Far East.

DIAGNOSIS. Male imago. (n = 2). Total length 1.7–2.1 mm. Wing length 1.2–1.4. AR 1.04–1.2. Head without verticals, only with 2–3 postorbitals. Acrostichals 2 in mid-scutum, dorsocentrals 9–10, prealars 4. Hypopygium as in Figs 43–44.

REMARKS. The slide-mounted material is not in good condition; thus we cannot give more detailed information, namely no leg proportions.

DISTRIBUTION. Palaearctic species. Before the present finding in the Russian Far East, *P. trilobata* was known only from Europe [Ashe & Cranston, 1990] and the Leningradsky and Permsky Regions of Russia [Pankratova, 1970].

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Figs 36–44. *Pseudosmittia* spp., male imagines: 36–37 — *P. oxoniana* from Tauí River basin (36) and Seutakan Lake (Chukotka Peninsula) (37), 38–39 — *P. rostriformis* Makarchenko et Makarchenko; 40–42 — *P. ruttneri* Strenzke et Thienemann; 43–44 — *P. trilobata* Edwards; 36–37, 39–40, 44 — hypopygium, from above; 38 — virga; 41 — part of gonocoxite and gonostylus; 42 — apex of 13th flagellomere; 43 — distal part of posterior lobe of ventral part of inferior volsella. Scale bars are as follows: Figs. 36–42, 44 — 50 μ m, Fig. 43 — 20 μ m.

Рис. 36–44. *Pseudosmittia* spp., самец, имаго: 36–37 — *P. oxoniana* из бас. р. Тауй (36) и оз. Сеутакан (Чукотский полуостров) (37); 38–39 — *P. rostriformis* Makarchenko et Makarchenko; 40–42 — *P. ruttneri* Strenzke et Thienemann; 43–44 — *P. trilobata* Edwards (43–44); 36–37, 39–40, 44 — общий вид гипопгия, сверху; 38 — вирга; 41 — часть гонококсита и гоностиль; 42 — вершина 13-го флагелломера антенны; 43 — дистальная половина задней лопасти вентральной части нижнего придатка гонококсита. Масштабная линейка 36–42, 44 — 50 мкм, рис. 43 — 20 мкм.

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