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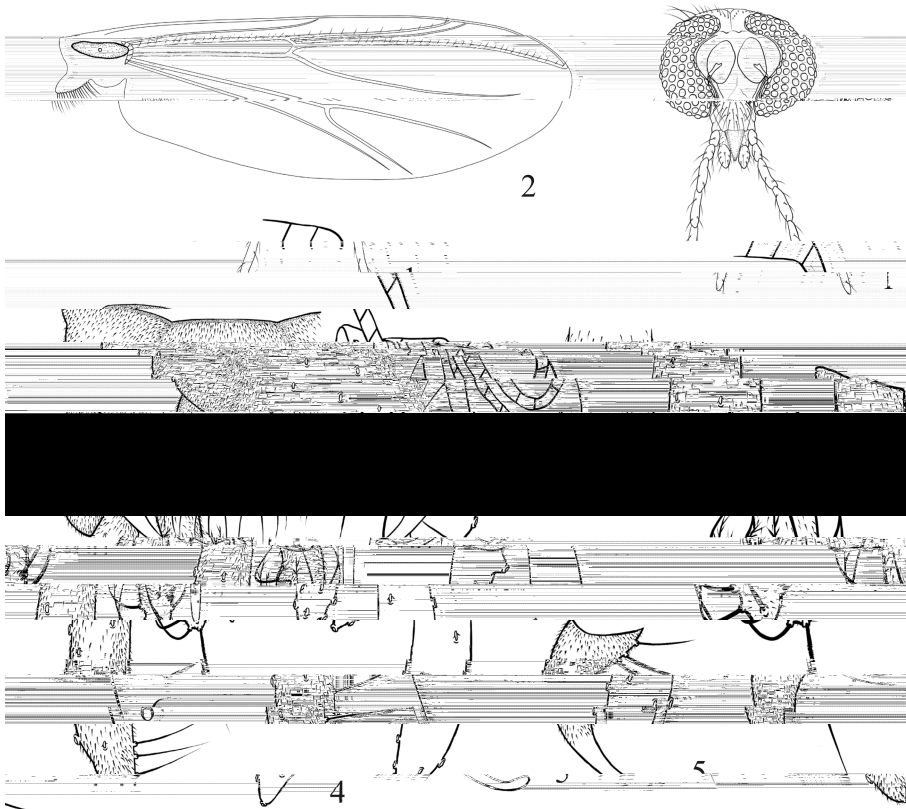
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Material and methods

Taxonomy

() *sp. nov.*



Diagnostic characters. The male imago can be distinguished from known species of the genus by the following combination of characters: superior volsella without lateral seta, dark brown body coloration and small AR value (0.60–0.88).

Male ($n = 15$).

Total length 2.50–3.13 mm. Wing length 1.38–1.78 mm. Total length/wing length 1.61–1.91. Wing length/length of profemur 2.13–2.58.

Coloration. Body dark brown except for legs yellow.

Head (Fig. 1). Frontal tubercle absent. AR 0.60–0.88. Ultimate flagellomere 295–440 μm long. Temporal setae 12–15; including 2–3 inner verticals; 5–8 outer verticals and 3–6 postorbitals. Clypeus with 16–22 setae. Tentorium 105–140 μm long; 20–28 μm wide. Palpomere lengths (in μm): 30–40; 33–43; 80–110; 98–115; 175–215.

Thorax. Dorsocentrals 16–27 including 4–6 humerals; acrostichals 16–30; prealars 4–7. Scutellum with 15–23 setae.

Wing (Fig. 2). Wing transparent, without markings. VR 1.34–1.39. R with 14–20 setae; R_1 with 11–19; R_{4+5} with 24–36. Squama with 14–21 setae. Anal lobe well-developed.

Legs. Terminal scale (Fig. 3) of front tibia 33–43 μm long, triangular and apically pointed. Spur on mid tibiae 50–28 μm long including 25–30 μm long comb, unspurred comb 20–28 μm long, spur on hind tibia 50–65 μm long including 25–38 μm long comb, and unspurred comb 23–28 μm long. Width at apex of front tibia 40–58 μm , of mid tibia 45–53 μm , and of hind tibia 50–63 μm . Lengths (in μm) and proportions of legs in Table 1.

Table 1. Lengths (in μm) and proportions of legs of *P. (Polypedilum) xianjuensis* sp. nov.

	fe	ti	ta ₁	ta ₂	ta ₃	ta ₄	ta ₅	LR
p ₁	600–730	410–530	710–830	480–590	290–370	240–300	120–140	1.54–1.81
p ₂	700–880	600–750	290–325	200–240	150–190	110–135	70–80	0.43–0.50
p ₃	770–950	650–810	450–520	260–310	240–280	150–170	80–95	0.63–0.70

Hypopygium (Fig. 4). Anal tergite band developed and fused basal. Tergite IX with 6–13 median setae, posterior margin of tergite IX with 10–12 setae. Laterosternite with 2–3 setae. Anal point 53–68 μm long tapered from base and then parallel-sided. Phallapodeme 65–88 μm long; transverse sternapodeme 30–55 μm long. Gonocoxite 120–143 μm long. Superior volsella (Fig. 5) 60–78 μm long, base with 2–4 inner setae and covered with microtrichiae, without lateral setae. Inferior volsella (Fig. 6) 70–90 μm long, with 8–13 split oral setae and an apical seta. Gonostylus 110–138 μm long, with 4–5 long setae along inner margin and an apical seta. HR 0.96–1.16. HV 2.00–2.42.

Holotype. ♂, **China**, Zhejiang, Taizhou City, Xianju County, Xianju National Park, 27-VIII-2015, sweeping method, Xin QI. **Paratypes.** 14♂, same as holotype.

Etymology. The species is named after the type locality, using the Latin suffix *-ensis*, denoting place of origin.

Remarks. The new species is similar to *P. (P.) toganudum* Sasa & Okazawa, 1991, but can be distinguished by the smaller body size, by having no black longitudinal band in the abdominal segments and by the pale legs. This species is also similar to the species *P. (P.) medivittatum* (Tokunaga, 1964) by the structure of hypopygium, but AR of *P. (P.) xianjuensis* sp. nov. is 0.60–0.88, stremely less than that of AR about 2.00 in *P. (P.) medivittatum* (Tokunaga).

Journal of Zoology

Sichuan

Research Report from Toyama Prefectural Environmental Pollution Research Center