

Five new species in the genus *Platypalpus* (Diptera: Empididae) from Wuyishan, China

Hang ZHOU¹, Wenqiang CAO¹, Fangzhou MA^{2①}, Ding YANG^{1①}

1. Department of Entomology, College of Plant Protection, China Agricultural University, Beijing 100193, China

2. Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment; National Key Laboratory of Biosafety; State Environmental Protection Scientific Observation and Research Station for Ecology and Environment of Wuyi Mountains, Ministry of Ecology and Environment, Nanjing, Jiangsu 210042, China

Abstract: *Platypalpus* Macquart is one of the largest genera in the family Empididae with over 560 known species distributed worldwide, of which 66 species were recorded from China. Only one species, *Platypalpus curvispinus* Yang & Yang, 2003, was known to occur in Wuyishan. Here 5 new species are added to this region: *Platypalpus bifurcatus* sp. nov., *Platypalpus latiapicatus* sp. nov., *Platypalpus latimaculatus* sp. nov., *Platypalpus wuyishanus* sp. nov., and *Platypalpus xianfenglinganus* sp. nov. A key to the species of *Platypalpus* from Wuyishan is presented.

Key words: dance fly; taxonomy; key

武夷山平须舞虻属 *Platypalpus* 五新种 (双翅目: 舞虻科)

周航¹, 曹文强¹, 马方舟^{2①}, 杨定^{1①}

1. 中国农业大学植物保护学院昆虫学系, 北京 100193; 2. 生态环境部南京环境科学研究所; 国家环境保护生物安全重点实验室; 国家环境保护武夷山生态环境科学观测研究站, 江苏 南京 210042

摘要: 平须舞虻属 *Platypalpus* Macquart 是舞虻科中最大的属之一, 已知560余种分布世界各地, 我国已知66种。武夷山仅报道1种: 弯刺平须舞虻 *Platypalpus curvispinus* Yang & Yang, 2003。本文记述武夷山平须舞虻属5新种: 叉平须舞虻 *Platypalpus bifurcates* sp. nov., 宽端平须舞虻 *Platypalpus latiapicatus* sp. nov., 宽斑平须舞虻 *Platypalpus latimaculatus* sp. nov., 武夷山平须舞虻 *Platypalpus wuyishanus* sp. nov., 先锋岭平须舞虻 *Platypalpus xianfenglinganus* sp. nov.; 并编制了武夷山平须舞虻属的分种检索表。

关键词: 舞虻; 分类; 检索表

Introduction

Platypalpus Macquart is one of the largest genera in the family Empididae. Over 560 species are known worldwide, of which 66 species were recorded from China (Yang *et al.*

Accepted 12 May 2023. Published online 4 December 2023. Published 25 December 2023.

① Corresponding authors, E-mails: mfz@nies.org; dyangcau@126.com

2007, 2018; Li *et al.* 2019, 2021). It is characterized by the raptorial mid leg and wing with an anal cell (Chvála 1975; Grootaert & Chvála 1992). The European species were divided into eleven species groups by Chvála (1975). The major references dealing with the Oriental and Palaearctic *Platypalpus* are as follows: Brunetti (1920), Frey (1943), Smith (1965), Chvála (1975, 1989), Grootaert & Chvála (1992), Grootaert & Shamshev (2006), and Yang *et al.* (2010).

Only one species, *Platypalpus curvispinus* Yang & Yang, 2003, was known to occur in Wuyishan (Yang *et al.* 2018). Here five new species are added to Wuyishan. A key to the species of *Platypalpus* from Wuyishan is presented.

Material and methods

Specimens were examined and illustrated using a ZEISS Stemi 2000–c. Genitalic preparations were made by macerating the apical portion of the abdomen in cold 10% NaOH for about 6 hours. The type specimens are deposited in the Entomological Museum of China Agricultural University (CAU), Beijing. The following abbreviations are used: acr — acrostichal bristle(s); av — anteroventral bristle(s); dc — dorsocentral bristle(s); h — humeral bristle(s); npl — notopleural bristle(s); oc — ocellar bristle(s); prsc — prescutellar bristle(s); psa — postalar bristle(s); pv — posteroventral bristle(s); sc — scutellar bristle(s).

Taxonomy

Key to species of *Platypalpus* from Wuyishan

1. Thorax mostly yellow or brownish yellow 2
- Thorax entirely black 4
2. Thorax mostly yellow; arista dark brown 3
- Thorax mostly brownish yellow; arista white *Platypalpus xianfenglinganus* **sp. nov.**
3. Mesonotum with two long wide black bands on posterior 2/3; mid femur 2.0 times thicker than hind femur; mid tibia with long finger-like apical spur longer than tibia thickness *Platypalpus latimaculatus* **sp. nov.**
- Mesonotum entirely yellow; mid femur 1.5 times thicker than hind femur; mid tibia with short finger-like apical spur *Platypalpus latiapicatus* **sp. nov.**
4. Arista longer than first flagellomere 5
- First flagellomere nearly as long as arista *Platypalpus curvispinus* Yang & Yang
5. Vt absent; basal half of 2nd costal section black; mid tibia with long acute apical spur *Platypalpus wuyishanus* **sp. nov.**
- 2 very long vt; basal half of 2nd costal section not blackened *Platypalpus bifurcatus* **sp. nov.**

1. *Platypalpus bifurcatus* **sp. nov.** (Fig. 1)

Description. Male. Body length 1.8 mm, wing length 2.1 mm.

Head black with somewhat dense pale gray pollen; clypeus shiny. Eyes dark brown, separated; face distinctly narrower than frons. Hairs on head brown, bristles dark brown. Ocellar tubercle with 2 very long oc slightly longer than vt and 2 very short posterior hairs; 2 divergent vt very long, subequal in length. Antenna black except first flagellomere and arista dark brown; scape without dorsal bristles; pedicel with circle of blackish apical hairs; first

flagellomere somewhat conical, 1.55 times longer than wide, very short dark brown pubescence; arista 3.8 times longer than first flagellomere, dark brown, very short brown pubescence. Proboscis 0.65 times as long as height of head, brown to dark brown, with few short brown hairs; palpus nearly oval, nearly as long as wide, dark brownish yellow with brownish hairs and 1 brownish apical bristle.

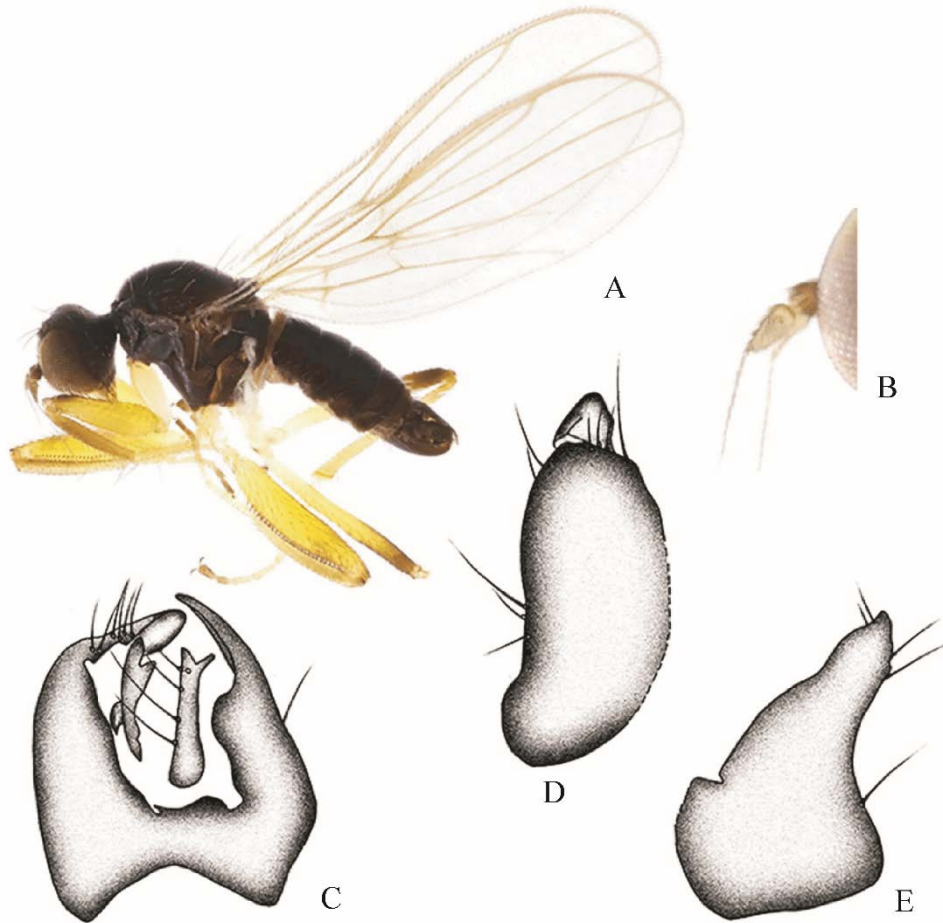


Figure 1. *Platypalpus bifurcatus* sp. nov. A. Male habitus, lateral view; B. Antenna, lateral view; C. Male genitalia, dorsal view; D. Right epandrial lamella; E. Left epandrial lamella.

Thorax somewhat shiny black with pale gray pollen. Hairs on thorax brown, bristles dark brown; hairs and bristles on mesoscutum rather sparse, somewhat; biseriate acr distinctly separated from dc, 1 very long posterior dc; 1 long h, 2 npl (posterior npl rather long), 1 short psa, 1 short presc hair-like; scutellum with 2 pairs of sc (basal pair rather short, apical pair very long). Legs brownish yellow, but all coxae yellow, fore femur with a black dorsal spot at tip, mid femur with a brown anterior spot subapically, apical 1/3 of hind femur blackish; fore tibia brownish to brown; all tarsomeres 4–5 dark brown. Hairs and bristles on legs brown to dark brown except those on coxae dark yellow. Mid femur weakly thickened; fore femur 1.3 times and mid femur 1.6 times as wide as hind femur. Mid femur with two rows of very short

spine-like black ventral bristles and one row of very long blackish outer pv nearly as long as femur thickness. Mid tibia with row of dark brown short ventral bristles; apical spur very short, nearly finger-like, distinctly shorter than tibia thickness, and with 1 short black terminal bristle. Wing hyaline; veins dark brown; R_{4+5} and M nearly parallel apically; crossveins r-m and m-m very narrowly separated. Squama brownish yellow with brown hairs. Halter dark yellow.

Abdomen nearly straight, shiny black with thin pale gray pollen; tergites 2–5 rather long; hypopygium little narrower than pregenital segments. Hairs and bristles on abdomen brown to dark brown.

Male genitalia. Left and right epandrial lamellae widely connected at base. Right epandrial lamella large lobate, much longer than wide; right surstylus very short, somewhat conical. Left epandrial lamella somewhat quadrate; left surstylus long subconical. Right cercus distinctly shorter than left cercus, basally narrow, apically thick and shallowly bifurcated; left cercus long, finger-like, basally thick, apically shallowly bifurcated.

Female. Body length 2.6 mm, wing length 2.5 mm.

Holotype. ♂, **China**, Fujian, Wuyishan, Wulichang, 825 m, 03–10-V-2021, Malaise trap (CAU). **Paratype.** 1♀, **China**, Fujian, Wuyishan, Yangjiashan, 1044 m, 10–17-V-2021, Malaise trap (CAU).

Etymology. The specific epithet is from the Latin “*bi*” and “*furca*”, referring to the bifurcated or “two forked” cercus.

Diagnosis. Thorax entirely black. 2 very long vt. 2 very long oc. Fore femur with a black dorsal spot at extreme tip, apical 1/3 of hind femur blackish. Mid tibia with very short apical spur, nearly finger-like.

Remarks. This new species belongs to *Platypalpus nigratarsis* species group. It is similar to *P. dongae* Li, Chang, Zhang & Yang, 2019 from Sichuan, but can be easily separated from the latter by the following features: palpus dark brownish yellow; first flagellomere somewhat conical, 1.55 times longer than wide; mid femur 1.6 times as wide as hind femur; male cercus bifurcated apically. In *P. dongae*, the palpus is dark brown; the first flagellomere is 2.1 times longer than wide; the mid femur is 2.0 times as wide as hind femur; and the male cercus is not furcated apically (Li *et al.* 2019).

2. *Platypalpus latiapicatus* sp. nov. (Fig. 2)

Description. Male. Body length 2.7 mm, wing length 2.9 mm.

Head black with somewhat dense pale gray pollen; clypeus shiny. Eyes dark brown, separated; face distinctly narrower than frons. Hairs on head dark yellow, bristles brownish. Ocellar tubercle with 2 long oc shorter than vt and 2 very short posterior hairs; 2 very long, divergent vt, inner vt nearly as long as outer vt. Antenna broken. Proboscis 0.8 times as long as height of head, brownish yellow, with few short brown hairs; palpus long oval, about 2 times longer than wide, yellow with dark yellow hairs and 1 brownish apical bristle.

Thorax somewhat shiny yellow with thin pale gray pollen; mesonotum entirely yellow; scutellum and postnotum black, laterotergite black with outer portion brownish yellow; sternopleuron with a long black stripe at posterior margin, upper portion of metapleuron black. Hairs on thorax dark yellow, bristles brownish; hairs on mesoscutum short, sparse, acr hexaseriate, dc narrowly separated from dc; 1 short h, 2 npl (posterior npl very long), 1 very

long psa, 1 long presc shorter than psa; scutellum with 2 pairs of sc (basal pair rather short, apical pair very long). Legs entirely yellow. Hairs and bristles on legs brownish except those on coxae dark yellow. Mid femur somewhat weakly thickened; fore femur as thick as hind femur, mid femur 1.5 times thicker than hind femur. Mid femur with two rows of thick blackish ventral bristles (av very short, pv 2–3 times longer than av, but 3 basal av and pv rather long and brownish yellow). Mid tibia with row of very short black ventral bristles; apical spur short, finger-like nearly as long as tibia thickness. Wing hyaline; veins brownish to brown; R_{4+5} and M weakly convergent apically; crossveins r-m and m-m contiguous. Squama yellow with dark yellow hairs. Halter dark yellow with yellowish knob.

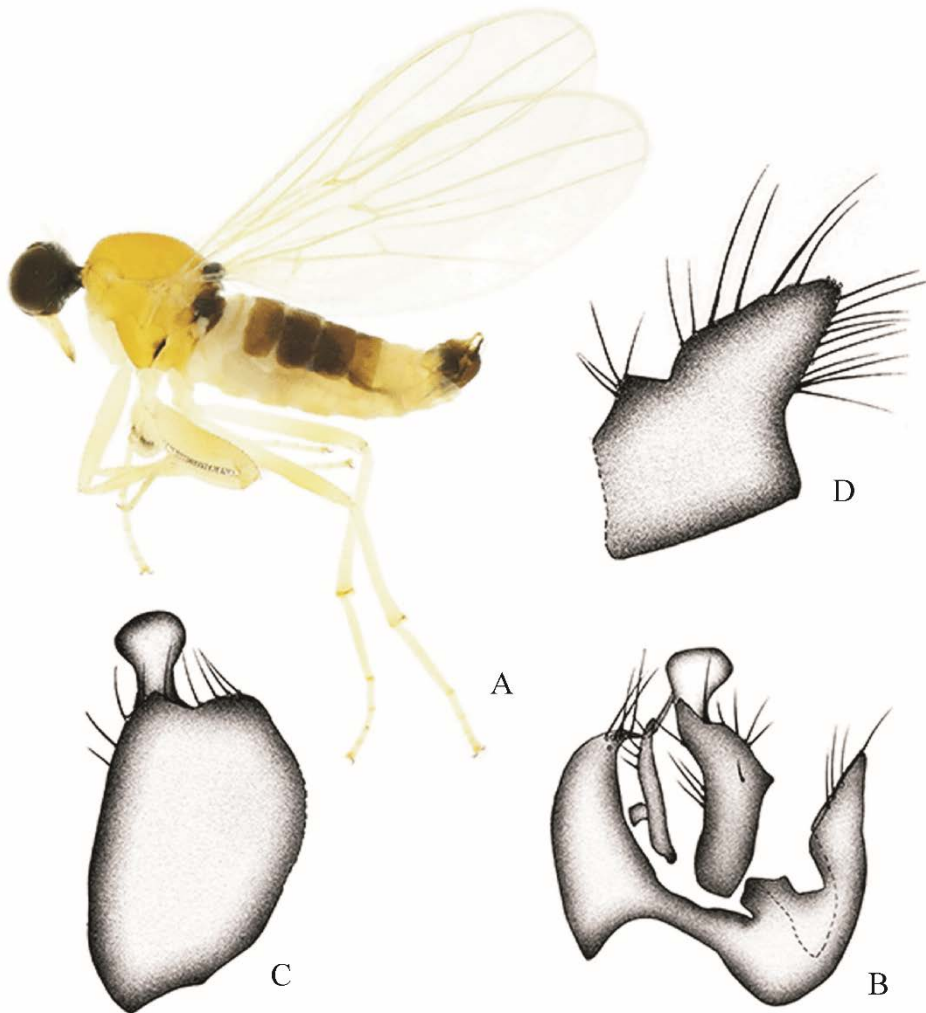


Figure 2. *Platypalpus latiapicatus* **sp. nov.** A. Male habitus, lateral view; B. Male genitalia, dorsal view; C. Right epandrial lamella; D. Left epandrial lamella.

Abdomen nearly straight, somewhat shiny yellow with pale gray pollen except tergites 1–5 and hypopygium dark brown. Hypopygium slightly narrower than pregenital segments. Hairs and bristles on abdomen dark yellow except those on hypopygium dark brown.

Male genitalia. Left and right epandrial lamellae narrowly connected at base. Right epandrial lamella large, lobate, distinctly longer than wide; right surstylus rather short, basally somewhat narrow, apically wide and obtuse. Left epandrial lamella relatively small, somewhat quadrate; left surstylus subtriangular. Right cercus long strip-like; left cercus rather thick, apically curved and somewhat wide.

Female. Unknown.

Holotype. ♂, **China**, Fujian, Wuyishan, Erlichang, 764 m, 10–17-V-2021, Malaise trap (CAU).

Etymology. The specific epithet is from the Latin *latus* (“wide”) and *apiculus* (“apex”) referring to the left cercus having the wide apex.

Diagnosis. Mesonotum entirely yellow. Scutellum and postnotum black. 2 very long vt. Legs entirely yellow. Mid femur 1.5 times thicker than hind femur. Mid tibia with short finger-like apical spur.

Remarks. This new species belongs to the *Platypalpus longicornis* species group. It is similar to *P. guangdongensis* Yang, Merz & Grootaert from Guangdong, but can be easily separated from the latter by the following features: legs entirely yellow; mid femur 1.5 times thicker than hind femur; left cercus with thick tip. In *P. guangdongensis*, the legs are yellow with tarsomere 5 dark brown; the mid femur is 1.8 times thicker than hind femur; and the left cercus is spine-like at tip (Yang *et al.* 2006).

3. *Platypalpus latimaculatus* sp. nov. (Fig. 3)

Description. Male. Body length 3.4–4.1 mm, wing length 4.3–4.35 mm.

Head black with somewhat dense pale gray pollen; clypeus shiny. Eyes dark brown, separated; face distinctly narrower than frons. Hairs on head dark yellow, bristles brownish. Ocellar tubercle with 2 long oc nearly as long as inner vt and 2 very short posterior hairs; 2 divergent vt, inner vt longer than outer vt. Antenna dark yellow; scape without dorsal bristles; pedicel with circle of brown apical hairs; first flagellomere subconical, 1.5 times longer than wide, brownish yellow pubescent; arista 3.6 times longer than first flagellomere, dark brown, very short brown pubescent. Proboscis 0.8 times as long as height of head, brownish yellow, with few short brown hairs; palpus long oval, about 2 times longer than wide, yellow with dark yellow hairs and 1–2 brownish yellow apical bristles.

Thorax somewhat shiny yellow with thin pale gray pollen; mesonotum with two long wide black bands on posterior 2/3; scutellum and postnotum black, laterotergite black with outer portion brownish yellow; sternopleuron with a long black stripe at posterior margin, upper portion of metapleuron blackish. Hairs on thorax dark yellow, bristles brownish; hairs on mesoscutum short, sparse, acr hexaserial, dc narrowly separated from dc; h absent, 2 npl (posterior npl very long), 1 very long psa, 1 long presc shorter than psa; scutellum with 2 pairs of sc (basal pair rather short, apical pair very long). Legs yellow except tarsomere 5 blackish with yellow base. Hairs and bristles on legs brown except those on coxae dark yellow. Mid femur distinctly thickened; fore femur 1.2 times and mid femur 2.0 times thicker than hind femur. Mid femur with two rows of thick blackish ventral bristles (av very short, pv 3–4 times

longer than av; 3–4 basal av long, 4 basal pv rather long, brownish). Mid tibia with row of very short black ventral bristles; apical spur long, finger-like, longer than tibia thickness. Wing hyaline; veins brownish to brown; R_{4+5} and M weakly convergent apically; crossveins r-m and m-m contiguous. Squama yellow with dark yellow hairs. Halter dark yellow.

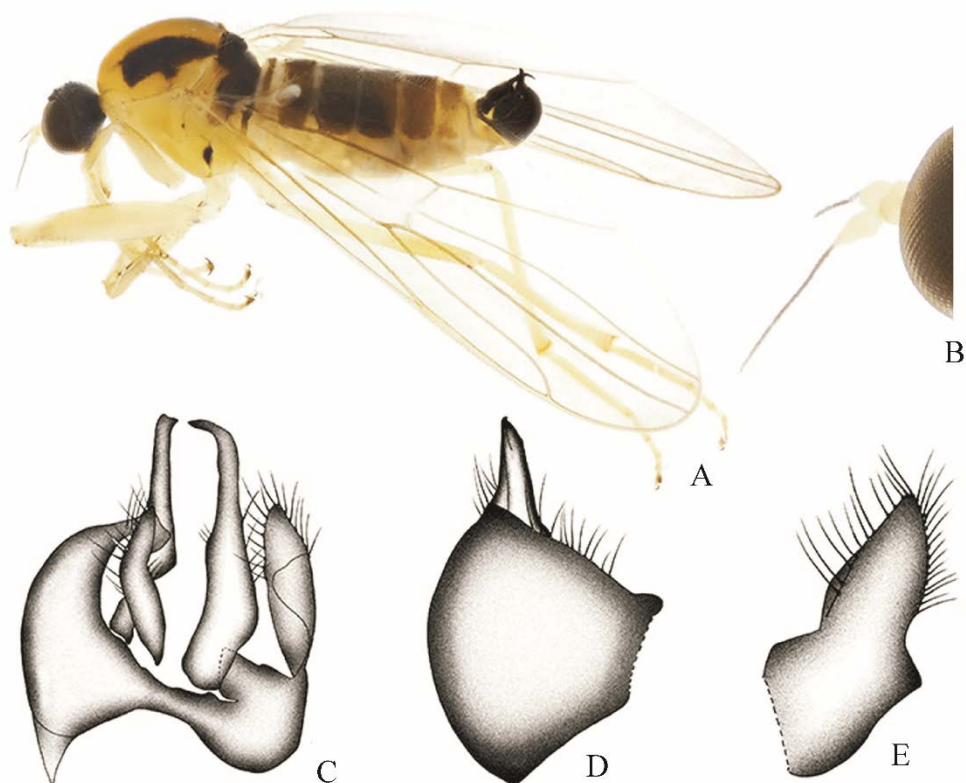


Figure 3. *Platypalpus latimaculatus* sp. nov. A. Male habitus, lateral view; B. Antenna, lateral view; C. Male genitalia, dorsal view; D. Right epandrial lamella; E. Left epandrial lamella.

Male genitalia. Left and right epandrial lamellae narrowly connected at base. Right epandrial lamella large, lobate; right surstylus erect, very long, basally thick, narrowed toward tip. Left epandrial lamella somewhat quadrate; left surstylus long, subtriangular. Right cercus much shorter than left cercus, slightly bent, with somewhat acute tip; left cercus much elongated, basally thick, apically long hook-like.

Female. Body length 4.7–4.75 mm, wing length 3.7–4.1 mm.

Holotype. ♂, **China**, Fujian, Wuyishan, Erlichang, 764 m, 17–19-V-2021, Malaise trap (CAU). **Paratypes.** 1♂, same data as holotype (CAU); 1♂, **China**, Fujian, Wuyishan, Yangjiashan, 1044 m, 1017-V-2021, Malaise trap (CAU); 2♀, **China**, Fujian, Wuyishan, Guadun, 1000–1200 m, 16-IV-2021, Fangzhou MA (CAU); 1♂, **China**, Fujian, Wuyishan, Yangludaoban, 1044 m, 07–25-V-2021, Malaise trap (CAU); 1♀, **China**, Fujian, Wuyishan, Liaowangtai, 1160 m, 03–10-V-2021, Malaise trap (CAU); 1♂, **China**, Fujian, Wuyishan, Shibangqiao, 964 m, 25-V–01-VI-2021, Malaise trap (CAU).

Etymology. The specific epithet is from the Latin *latus* (“wide”) and *macula* (“mark”), referring to the wide bands on the mesonotum.

Diagnosis. 2 vt. Thorax mostly yellow; mesonotum with two long wide black bands on posterior 2/3; scutellum and postnotum black, laterotergite black with outer portion brownish yellow. Antenna yellow with dark brown. Mid femur 2.0 times thicker than hind femur. Mid tibia with long finger-like apical spur longer than tibia thickness.

Remarks. This new species is in the *Platypalpus longicornis* species group. It is somewhat similar to *P. guangdongensis* Yang, Merz & Grootaert from Guangdong, but can be easily separated from the latter by the following features: mesonotum with two long, wide, black bands on posterior 2/3; mid femur 2.0 times thicker than hind femur; right surstylus is very long. In *P. guangdongensis*, the mesonotum is entirely yellow; the mid femur is 1.8 times thicker than hind femur; and the right surstylus is very short and thick (Yang *et al.* 2006).

4. *Platypalpus wuyishanus* sp. nov. (Fig. 4)

Description. Male. Body length 2.6 mm, wing length 3.2 mm.

Head black with somewhat dense pale gray pollen; clypeus shiny. Eyes dark brown, separated; face distinctly narrower than frons. Hairs on head dark yellow, sparse on upper occiput but long and somewhat dense on lower occiput; bristles brown. Ocellar tubercle with 2 short oc and 2 very short posterior hairs; vt indistinct. Antenna blackish except first flagellomere and arista dark brown; scape without dorsal bristles; pedicel with circle of blackish apical hairs; first flagellomere long conical, 2.5 times longer than wide, very short dark brown pubescence; arista 2.0 times longer than first flagellomere, very short dark brown pubescence. Proboscis 0.45 times as long as height of head, dark brown, with few short brown hairs; palpus long oval, about 2.5 times longer than wide, dark brownish yellow with brown hairs and 1 brownish apical bristle.

Thorax somewhat shiny black with thin pale gray pollen. Hairs on thorax dark yellow, bristles brownish; hairs on mesoscutum uniformly short, rather dense; acr and dc not separated posteriorly; 1 weak h, 2 npl (posterior one long), 1 long psa, 1 long presc; scutellum with 2 pairs of sc (basal pair rather short). Legs dark brownish yellow, but mid and hind coxae brownish yellow, mid femur with a brown anterior dorsal spot subapically, and all of tarsomere 5 brown. Hairs and bristles on legs dark yellow and brown except those on coxae dark yellow. Mid femur distinctly thickened; fore femur 1.25 times and mid femur 2.0 times as wide as hind femur. Mid femur with two rows of thick black ventral bristles (av very short; pv rather long, 3–5 times longer than av). Mid tibia with row of short black ventral bristles; apical spur long, acute, slightly longer than tibia thickness, apically curved. Wing hyaline; veins brown to dark brown; basal half of 2nd costal section black; R₄₊₅ and M nearly parallel apically; crossveins r-m and m-m very narrowly separated. Squama brownish yellow with dark yellow hairs. Halter dark yellow with pale yellow knob.

Abdomen nearly straight, shiny black with thin pale gray pollen; tergites 2–5 rather long; hypopygium little narrower than pregenital segments. Hairs and bristles on abdomen brown to dark brown.

Male genitalia. Left and right epandrial lamellae widely connected at base. Right epandrial lamella rather broad, slightly longer than wide; right surstylus very short, wide, and

with a small apical incision. Left epandrial lamella somewhat quadrate; left surstylus large and wide, apically widely obtuse. Right cercus long, finger-like, nearly as long as left cercus; left cercus rather thick basally, nearly finger-like apically.

Female. Unknown.

Holotype. ♂, **China**, Fujian, Wuyishan, Yangludaoban, 890 m, 03–10-V-2021, Malaise trap (CAU).

Etymology. The specific epithet refers to the type locality Wuyishan.

Diagnosis. Thorax entirely black. First flagellomere 2.5 times longer than wide; arista somewhat short, 2.0 times longer than first flagellomere. Indistinct vt. All femora dark brownish yellow, only mid femur with brown anterior dorsal spot subapically. Mid tibia with long acute apical spur. Basal half of 2nd costal section black.

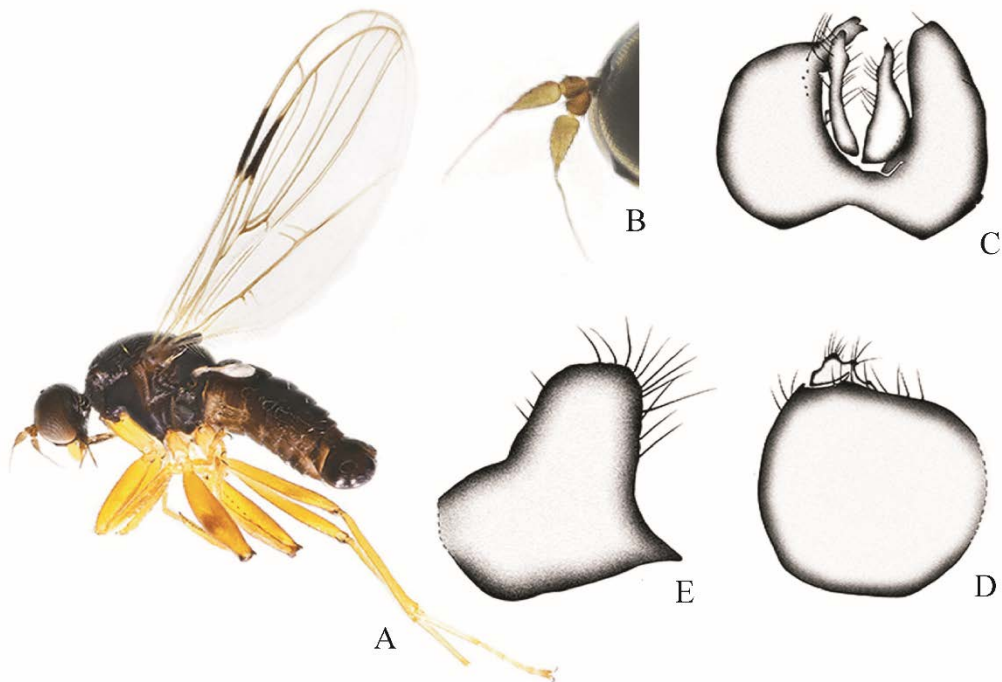


Figure 4. *Platypalpus wuyishanus* sp. nov. A. Male habitus, lateral view; B. Antenna, lateral view; C. Male genitalia, dorsal view; D. Right epandrial lamella; E. Left epandrial lamella.

Remarks. This new species belongs to the *Platypalpus ciliaris* species group. It is somewhat similar to *P. tapa* Smith from Nepal, but can be easily separated from the latter by only the mid femur having a brown anterior dorsal spot subapically and all tibiae and tarsi dark brownish yellow except tarsomere 5 brown. In *P. tapa*, the mid and mid femora have a black band, and all the tibiae and tarsi are black (Smith 1965).

5. *Platypalpus xianfenglinganus* sp. nov. (Fig. 5)

Description. Male. Body length 2.8 mm, wing length 2.8 mm.

Head black with somewhat dense pale gray pollen; clypeus shiny. Eyes dark brown, very narrowly separated; face slightly narrower than frons. Hairs on head brown, bristles dark

brown. Ocellar tubercle with 2 long oc and 2 very short posterior hairs; 1 long vt, nearly as long as oc. Antenna black, but first flagellomere blackish, arista white; scape without dorsal bristles; pedicel with circle of blackish apical hairs; first flagellomere rather long, 4.5 times longer than wide, distinctly dark brown pubescent; arista 2.9 times longer than first flagellomere, distinctly white pubescent. Proboscis 0.5 times as long as height of head, dark brown, with few short brown hairs; palpus nearly oval, nearly as long as wide, brownish yellow with brownish yellow hairs and 2 brownish apical bristles.

Thorax mostly somewhat shiny brownish yellow with pale gray pollen; pronotum widely black at middle; mesonotum with one large U-shaped dark brown spot anteriorly and with pair of large subtriangular black lateral spots posteriorly; humeral and postalar calli dark brown; scutellum and postnotum black, laterotergite blackish; lower 2/5 of pleuron black, upper portion of mesopleuron and pteropleuron tinged brown. Hairs on thorax brown, bristles dark brown; hairs on mesoscutum sparse. Biseriate acr widely separated, dc separated from acr; h absent, 2 npl (posterior one long), 1 long psa, 1 long presc; scutellum with 2 pairs of sc (basal pair rather short, weak). Legs brownish yellow, but all coxae yellow, hind femur brown except base, fore tibia and tarsus brown, mid and hind tarsomeres 3–5 brown. Hairs and bristles on legs brown to dark brown. Mid femur distinctly thickened; fore femur 1.1 times and mid femur 1.8 times as wide as hind femur. Mid femur with two rows of thick black ventral bristles (av very short spine-like; pv long thin, 3 times longer than av) and two rows of outer ventral bristles (outer av distinctly shorter than femur thickness; outer pv very long, longer than femur thickness). Mid tibia with row of very short blackish ventral bristles; apical spur short acute, distinctly shorter than tibia thickness. Wing hyaline, weakly tinged brownish; veins brown; R_{4+5} and M widened, but strongly convergent apically; crossveins r-m and m-m very narrowly separated. Squama brown with brown hairs. Halter dark yellow.

Abdomen nearly straight, subshiny dark brown with thin pale gray pollen; hypopygium black, narrower than pregenital segments. Hairs and bristles on abdomen brown to dark brown.

Male genitalia. Left and right epandrial lamellae widely connected at base. Right epandrial lamella short broad, nearly as long as wide, with a U-shaped apical incision; right surstylus very short, basally thick, apically spine-like. Left epandrial lamella somewhat small, nearly quadrate, nearly as long as wide; left surstylus short, conical. Right cercus distinctly shorter than left cercus, strip-like; left cercus long, finger-like, basally somewhat thick.

Female. Unknown.

Holotype. ♂, **China**, Fujian, Wuyishan, Xianfengling, 1147 m, 14–27-VII-2021, Malaise trap (CAU).

Etymology. The specific epithet refers to the type locality Xianfengling.

Diagnosis. Thorax dark brownish yellow. Mesonotum with one large U-shaped dark brown spot anteriorly and with pair of large subtriangular black lateral spots posteriorly; lower 2/5 of pleuron black. Hind femur brown except base.

Remarks. This new species belongs to the *Platypalpus albiseta* species group. It is similar to *P. bimaculata* Yang, Wang, Zhu & Zhang, 2010 from Henan, but can be easily separated from the latter by the following features: mesonotum brownish yellow with a large U-shaped dark brown spot anteriorly and one pair of large subtriangular black lateral spots posteriorly; scutellum black. In *P. bimaculata*, the mesonotum is yellow with two small subtriangular black spots; and the scutellum is yellow (Yang *et al.* 2010).

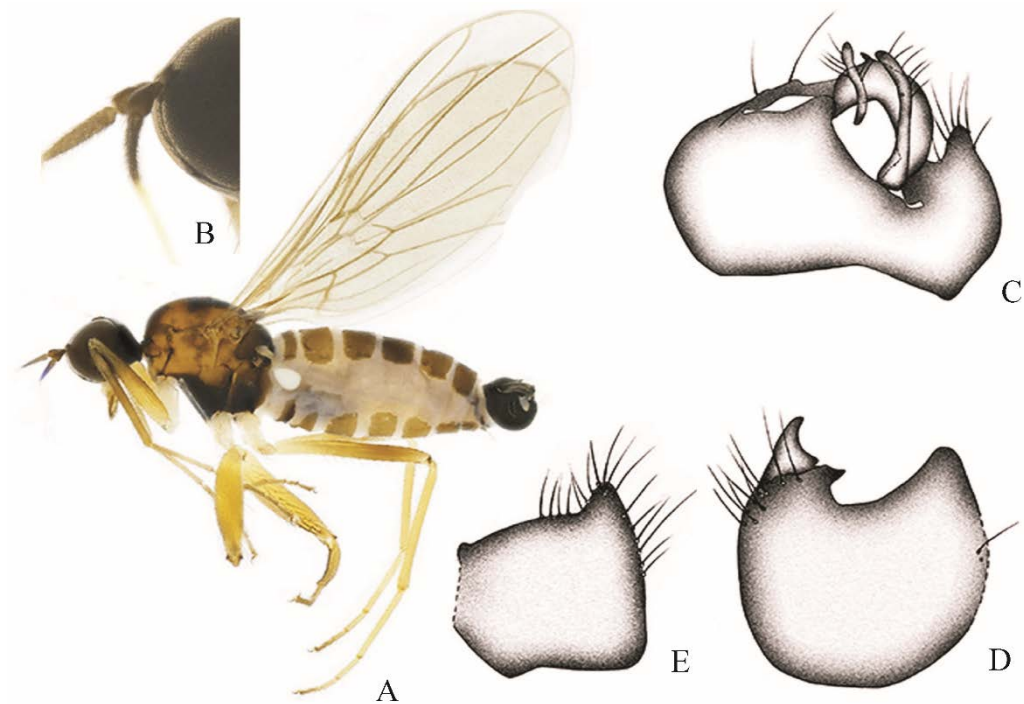


Figure 5. *Platypalpus xianfenglinganus* sp. nov. A. Male habitus, lateral view; B. Antenna, lateral view; C. Male genitalia, dorsal view; D. Right epandrial lamella; E. Left epandrial lamella.

Acknowledgements

We are grateful to Dr. Lingfei PENG (Fuzhou) for his help during the study. This research was supported by Wuyishan National Park Biological Resources Background Investigation Project and the National Natural Science Foundation of China (31970444).

References

- Brunetti E. 1920. Diptera Brachycera Vol. 1. *The Fauna of British India, including Ceylon & Burma*. London, 401 pp.
- Chvála M. 1975. The Tachydromiinae (Dipt. Empididae) of Fennoscandia and Denmark. I. *Fauna Entomologica Scandinavica*, 3: 1–336.
- Chvála M. 1989. Monograph of northern and central European species of *Platypalpus* (Diptera, Hybotidae), with data on the occurrence in Czechoslovakia. *Acta Universitatis Carolinae – Biologica*, 32: 209–376.
- Frey R. 1943. Übersicht der paläarktischen Arten der Gattung *Platypalpus* Macq. (= *Coryneta* Meig.). (Dipt., Empididae). *Notulae Entomologicae*, 23: 1–19.
- Grootaert P & Chvála M. 1992. Monograph of the genus *Platypalpus* (Diptera: Empidoidea, Hybotidae) of the Mediterranean region and the Canary Islands. *Acta Universitatis Carolinae – Biologica*, 36: 3–226.
- Grootaert P & Shamshev I. 2006. The genus *Platypalpus* Macquart (Diptera: Hybotidae) from northeast Thailand with comments on the species groups in the Oriental region. *Journal of Natural History*, 39(47): 4031–4065.

- Li XL, Chang WC, Zhang JH & Yang D. 2019. *Platypalpus* (Diptera: Empididae) from Laohegou Nature Reserve, Sichuan. *Transactions of the American Entomological Society*, 145: 269–287.
- Li ML, Gao S, Lin C & Yang D. 2021. Three new species of the genus *Platypalpus* (Diptera: Empididae) from Sichuan, China. *Entomotaxonomia*, 43(3): 189–195.
- Smith KGV. 1965. Diptera from Nepal: Empididae. *Bulletin of the British Museum (Natural History), Entomology*, 17(2): 61–112.
- Yang D, Merz B & Grootaert P. 2006. Descriptions of three new *Platypalpus* Macquart from Guangdong, China (Diptera, Hybotidae, Tachydromiinae). *Revue Suisse de Zoologie*, 113(2): 229–238.
- Yang D, Wang MQ, Zhu YJ & Zhang LL. 2010. *Diptera: Empidoidea. Insect Fauna of Henan*. Science Press, Beijing, 418 pp.
- Yang D, Zhang KY, Yao G & Zhang JH. 2007. *World Catalog of Empididae (Insecta: Diptera)*. China Agricultural University Press, Beijing, 599 pp.
- Yang D, Zhang LL & Zhang KY. 2018. *Species Catalog of China. Vol. 2. Animals, Insecta (VI), Diptera (2), Orthorrhaphous Brachycera*. Science Press, Beijing, 387 pp.