

One new species of *Clemelis* Robineau-Desvoidy (Diptera: Tachinidae) from China

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Abstract: One new species of the genus *Clemelis* from Baishanzu, Zhejiang province, Oriental China is described and illustrated, namely *Clemelis jingentaoi* Zhang & Hao sp. nov. This species is similar to Palaearctic *C. pullata* (Meigen) in appearance, but differs from the latter as follows: occiput without black setae at below postocellar setae, mid tibia with 4–6 anterodorsal setae, syntergite 1+2 with 2 strong median marginal setae and surstyli short.

Key words: Calyptratae; Goniini; taxonomy

中国卷须寄蝇属一新种（双翅目：寄蝇科）

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摘要：记述东洋界浙江百山祖采集的卷须寄蝇属 1 新种：金根桃卷须寄蝇 *Clemelis jingentaoi* Zhang & Hao sp. nov.，提供了形态特征图。本新种外部形态近似于分布古北界的黑袍卷须寄蝇，但区别于后者具有如下特征：后头在眼后鬃下方无黑色鬃毛，中足胫节具 4-6 根前背鬃，腹部第 1+2 合背板具 2 根强大的中缘鬃，雄性侧尾叶较短。

关键词：有瓣蝇类；膝芒寄蝇族；分类

Introduction

The genus *Clemelis* Robineau-Desvoidy, 1863 belongs to the tribe Goniini of subfamily Exoristinae (Diptera: Tachinidae), and seven species from Palaearctic (Herting & Hely-Draskovits 1993) and one from China (Chao *et al.* 1998; O'Hara *et al.* 2009) were reported. O'Hara & Henderson (2018) reported six species of *Clemelis* only distributed in the Palaearctic Region, and *C. atricans* Herting, 1975 was revised to *Elodia* Robineau-Desvoidy, 1863. During our studying tachinid specimens from Shanghai Entomological Museum, Chinese Academy of Sciences, one new species of *Clemelis* from Oriental Zhejiang, China is found and described here.

Material and methods

This study was based on the specimens loaning from Shanghai Entomological Museum, Chinese Academy of Sciences (SEMCAS), and the holotype and three paratypes were also

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deposited in SEMCAS and two paratypes were in Insect Collection of Shenyang Normal University (SYNU).

The morphological terminology used in the descriptions follows McAlpine (1981). Specimens were examined with Olympus SZX7 stereomicroscopes. Measurements of heads follow Tschorsnig & Richter (1998). Images were taken with a Leica 205A stereomicroscope.

Taxonomy

Clemelis Robineau-Desvoidy, 1863

Clemelis Robineau-Desvoidy, 1863: 481. Type species: *Zenillia ciligera* Robineau-Desvoidy, 1830 [= *Tachina pullata* Meigen, 1824]. type locality: Europe.

Diagnosis. Two reclinate upper orbital bristles present, the anterior one at least as large as the posterior one. Abdominal tergites with broad transverse bands of dense pruinosity or abdomen uniformly covered with dense pruinosity, tergites 3 and 4 of male usually with a narrow median longitudinal stripe of short recumbent hairs.

Clemelis jingentaoui Zhang & Hao sp. nov. (Figs. 1–8)

Diagnosis. Eye covered with densely yellowish long hairs, upper two frontal setae strong and reclinate, facial ridge with decumbent setae on lower 3/4–4/5, 2nd aristomere 2.5–3.0 times as long as wide, occiput without black setae at below postocellar setae; scutellum reddish brown except basal part black, apical scutellar setae parallel to scutellum, crossed, prealar seta as long as or slightly shorter than notopleural seta and the first intra-alar seta; mid tibia with 4–6 anterodorsal setae; syntergite 1+2 with 2 strong median marginal setae.

Description. Body length: 10.0–12.0 mm.

Male. Head. Dark in ground color and covered with grayish yellow pruinosity. Eye covered with densely yellowish long hairs. Frontal vitta dark-brown; fronto-orbital plate and parafacia covered with yellowish pruinosity; lunule brown to dark-brown. Antenna and arista dark-brown, only the juncture of pedicel and 1st flagellomere reddish brown; palpus brown to dark-brown on basal half and reddish yellow on distal half; prementum black. Frons 0.27–0.33 of head width, frontal vitta about equal to or wider than fronto-orbital plate; parafacial slightly wider than 1st flagellomere; gena about 3/7 of eye height; 12 frontal setae, upper two strong and reclinate, middle ones small and inclinate, lower 4–5 extending to upper half of parafacial; fronto-orbital plate and parafacial covered with dense small black hairs on upper half, lower half of parafacial bare; ocellar seta situated at both sides of anterior ocellus, about as long as upper frontal setae; facial ridge with decumbent setae on lower 3/4–4/5; vibrissa inserted above lower margin of face; inner vertical seta 0.6–0.8 of eye height; outer vertical seta fine, hair-like, 0.3–0.4 times as long as inner vertical seta; 2 postocellar setae; gena and lower occiput covered with dense black hairs, occiput flat and mostly with slender yellow hairs below postocellar seta. Antenna long, 1st flagellomere about 5.0 times as long as wide, 6.0–7.0 times as long as pedicel; arista bare, widened on basal half; 2nd aristomere 2.5–3.0 times as long as wide; prementum 2.5–3.0 times as long as wide; palpus slender, slightly longer than prementum.

Thorax. Black, dorsum and pleura covered with grayish white pruinosity, presutural scutum with 4 longitudinal black vittae, the inner vitta wide, about 1/3 of the distance between

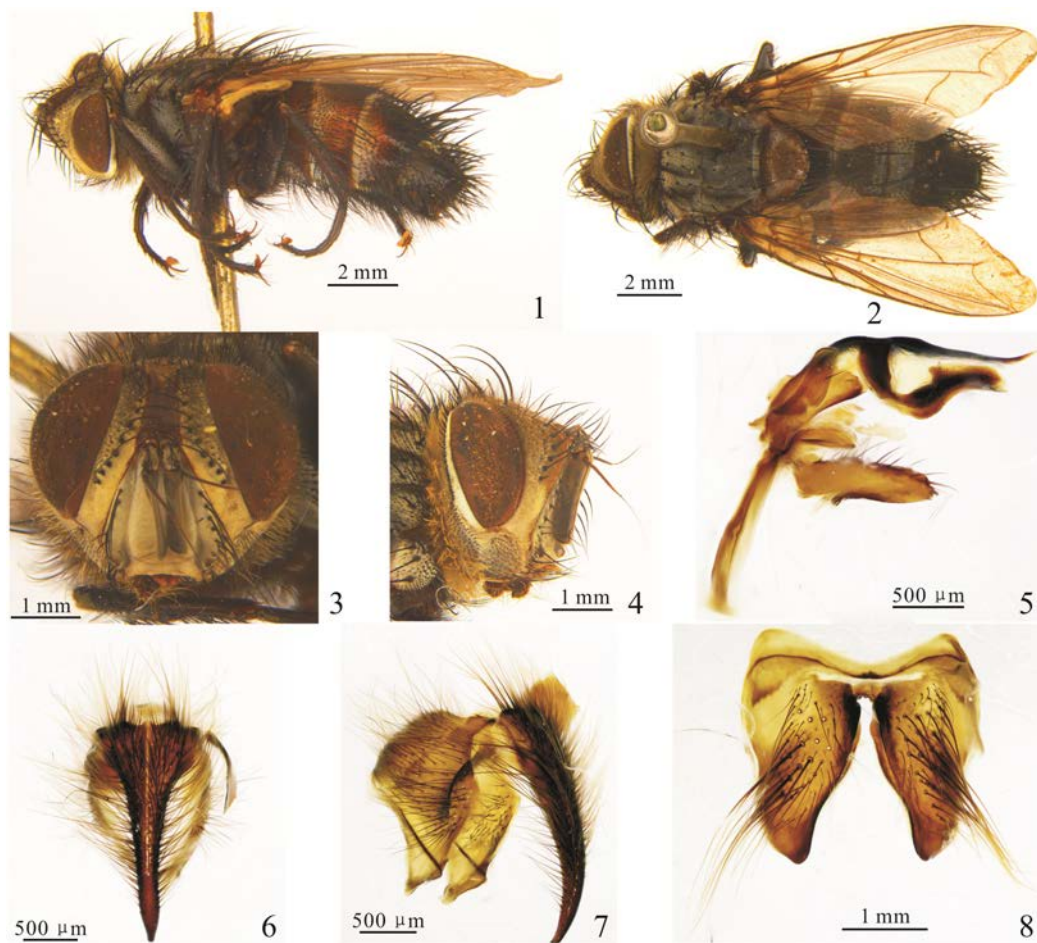
inner and outer vittae, posterior margin of outer vittae widened; postsutural scutum with 5 longitudinal black vittae, only the middle one extending to anterior part of scutellum, inner vitta extending to anterior 2/5 of postsutural scutum; postpronotal lobe dark-brown and covered with gray pruinosity; scutellum reddish brown except basal part black, covered with thin grayish-white pruinosity. Scutum with 3 presutural and 3 postsutural acrostichal setae, 3 presutural and 4 postsutural dorsocentral setae, 1 presutural and 3 postsutural intra-alar setae, 3 supra-alar setae; prealar seta slightly shorter than or as long as notopleural seta and the first intra-alar seta; 4 postpronotal setae, the anterior one situated the inner anterior part of the posterior three and weak; scutellum with 4 pairs of marginal setae and hair-like setae on middle part; apical scutellar setae slightly longer than scutellum, crossed and parallel to scutellum; 1 lateral scutellar seta shorter than subapical scutellar seta; 1 pair of discal scutellar setae near posterior margin of scutellum. Prosternum about twice as long as wide, with hairs on both sides; proepisternum bare; 1 anepimeral seta shorter than katepisternal seta; anepisternum covered with densely black hairs except for a row of posterior anepisternal setae. Wing brownish, hyaline; tegula and basicosta dark-brown; calypter yellowish, lower calypter usually with some sparse darker and slender pale hairs; halter reddish yellow in basal half, dark-brown in distal half; costal spine fine, shorter than half of crossvein r-m; relative lengths of 2nd, 3rd and 4th costal sectors approximately as 4.5 : 7 : 4; vein M, from crossvein r-m to crossvein dM-Cu, about 2.5 times as long as distance between crossvein dM-Cu and bend; bend of vein M with appendage, the distance between bend and crossvein dM-Cu about equal to the distance between bend and wing margin, vein M near right-angled; R₄₊₅ dorsally and ventrally with hairs only on basal part. Legs dark-brown, covered with grayish white pruinosity; fore claws and pulvilli longer than 5th tarsomere; fore tibia with a row of short anterodorsal setae on basal half, 2 posterior setae, 1 preapical posteroventral seta; mid femur with 1–2 anterior setae; mid tibia with 4–6 anterodorsal setae, the middle 2 strong, 2 posterior setae, 1 ventral seta; hind tibia with a row of anterodorsal setae, the middle 2–3 strong, 4 posterodorsal setae on basal half, lower one strong, 3–4 ventral setae, lower 2 strong, 2 preapical dorsal setae, 1 preapical anterodorsal seta, preapical posteroventral seta absent; hind trochanter with 1 seta.

Abdomen. Long ovate, dark brown, reddish yellow on both sides of syntergite 1+2 and tergites 3 and anterior half of lateral tergite 4, grayish white pruinose bands on anterior half of tergites 3 to 4, on anterior 1/3 to 2/3 of tergites 5; tergites with a longitudinal black median vitta. Syntergite 1+2 medially excavated to posterior margin, with 2 median marginal setae; tergite 3 with 2–4 median marginal setae, 2 lateral setae, a pair of median discal setae; tergite 4 with a row of marginal setae, a pair of median discal setae; tergite 5 with a row of marginal setae, many erect discal setae; sternite 1 with black hairs. Male terminalia as in Figs. 5–8, sternite 5 with deep V-shaped mid cleft, about 0.7 times as long as its length, apex of lateral lobe slightly pointed with some bristles on middle portion; cerci slender with many brown long hairs, narrowed at basal 1/4 and pointed at apex; surstylus short and thin; pregonite about as long as postgonite, phallus pointed at apex and distinctly sclerotized as Fig. 5.

Female. Unknown.

Holotype. ♂, **China**, Zhejiang prov., Baishanzu [in Chinese] / 1050–1760 m / 27-VII-1963 / G.-T. Jin coll. [in Chinese] [printed white label] // 32100186 [printed white label] // Holotype [printed red label] // *Clemelis jingentaoui* ♂/ sp. nov. [handwritten] / C.-T. Zhang

det. [in Chinese], 2019 / Zhang det., 2019 [printed] [white label] (SEMCAS). **Paratypes.** 5♂, same data as holotype, 27°43'N, 119°45'E.



Figures 1–8. *C. jingtaoi* sp. nov. 1. Male body, lateral view; 2. Male body, dorsal view; 3. Male head, anterior view; 4. Male head, lateral view; 5. Phallic complexes, lateral view; 6. Male terminalia, caudal view; 7. Male terminalia, lateral view; 8. Sternite 5, ventral view.

Distribution. China (Zhejiang).

Remarks. This species is similar to *C. pullata* (Meigen) in appearance, but differs from the latter as follows: occiput without black setae at below postocellar setae, mid tibia with 4–6 anterodorsal setae, syntergite 1+2 with 2 strong median marginal setae and surstyli short.

Etymology. The specific name refers to the name of its collector, Mr. Gentao JIN.

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