

## 中国带食蚜蝇属 *Epistrophe* Walker 三新种记述\*

(双翅目: 食蚜蝇科)

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**摘要** 本文记述了我国食蚜蝇科带食蚜蝇属 *Epistrophe* Walker 三新种: 毛缝带食蚜蝇 (*E. setifera* Chu et He)、南京带食蚜蝇 (*E. nankinensis* Chu et He) 和华丽带食蚜蝇 (*E. splendida* Chu et He)。所有模式标本保存于江苏省农业科学院植物保护研究所昆虫标本室。

**关键词** 双翅目; 食蚜蝇科; 带食蚜蝇属; 新种; 中国

**中图分类号** Q969.44

### 1. 毛缝带食蚜蝇 *Epistrophe setifera* Chu et He, 新种

♂ 头顶黑色, 长约为宽的 2 倍, 被黑色毛, 后缘被毛色黄。额角约 80 度; 额深黄色, 被黑色长毛和黄白色粉被; 新月片及其上方裸露, 为一淡褐色弧形斑。颜面淡黄色, 除中疣色深且光滑外, 均被黄色长毛和黄白色粉被; 口缘前方具淡褐色细边。颊灰黄色, 被黄毛。眼后区小, 上方被稀疏的黄毛, 下方密被白色短毛。头侧观如 (图 1, C)。复眼裸, 接合缝的长度短于头顶的长, 并着生有数根黑色长毛 (图 1, B)。触角 (图 1, A) 桔黄色; 第 1~2 节长略大于宽, 端缘的背面和腹面具粗黑短鬃; 第 3 节长椭圆形, 色微红。胸部背板和腹板黑色。前者具金属光泽, 被黄色毛和黄色粉被, 两侧粉黄色; 背板中央具两条不太明显的纵粉条, 其后端止于背板 4/5 处; 胸侧板黄褐色, 被浓密的黄粉, 毛黄色。小盾片深黄色, 被黄色长毛, 后缘中部具少量黑毛。腹部 (图 1, D) 黄色。第 1 背板中域具扁棱形黑斑; 第 2 背板前后缘具三角形黑带, 中部的三角形黄斑连接成宽带; 第 3 背板的前后缘各具一条黑色横带; 第 4 背板后方 3/4 处具一条黑色细横带, 其两端不达侧缘。翅呈微黄色, 脉淡褐色, 痣黄色。腋瓣黄白色, 边缘及缘毛黄色。平衡棒黄白色, 基部及端部色略暗。足除后足跗节褐色外, 余均为黄色; 前、中足及后足腿节基部 3/5 被黄色长毛, 后足腿节端部 2/5、胫节和跗节的背面被黑色短毛; 各足腿节的端部腹缘均裸。

外生殖器 (图 1, E-H): 侧尾叶宽大; 第 9 腹板的侧臂长而尖, 舌状突短小, 圆钝, 其下方具细微的横皱纹 (图 1, F); 上叶略呈纺锤形 (图 1, G); 阳茎基 (图 1, H) 发

\* 国家自然科学基金资助项目

1991-11-3 收稿

达；侧腹突具一对端齿。上齿略粗短，腹缘具一个小齿；阳茎端短，喇叭状，端腹面1/3具微小刺，背面微凹；阳茎内突短小。

体长：13mm；翅长：11mm。♀不详。

正模：♂，黑龙江宁安（镜泊湖）；1984-VII-7 何继龙采。

本种与属内其他种类的区别在于：体形较大；合眼缝具长毛；腹部斑纹结构以及雄虫外生殖器形态。

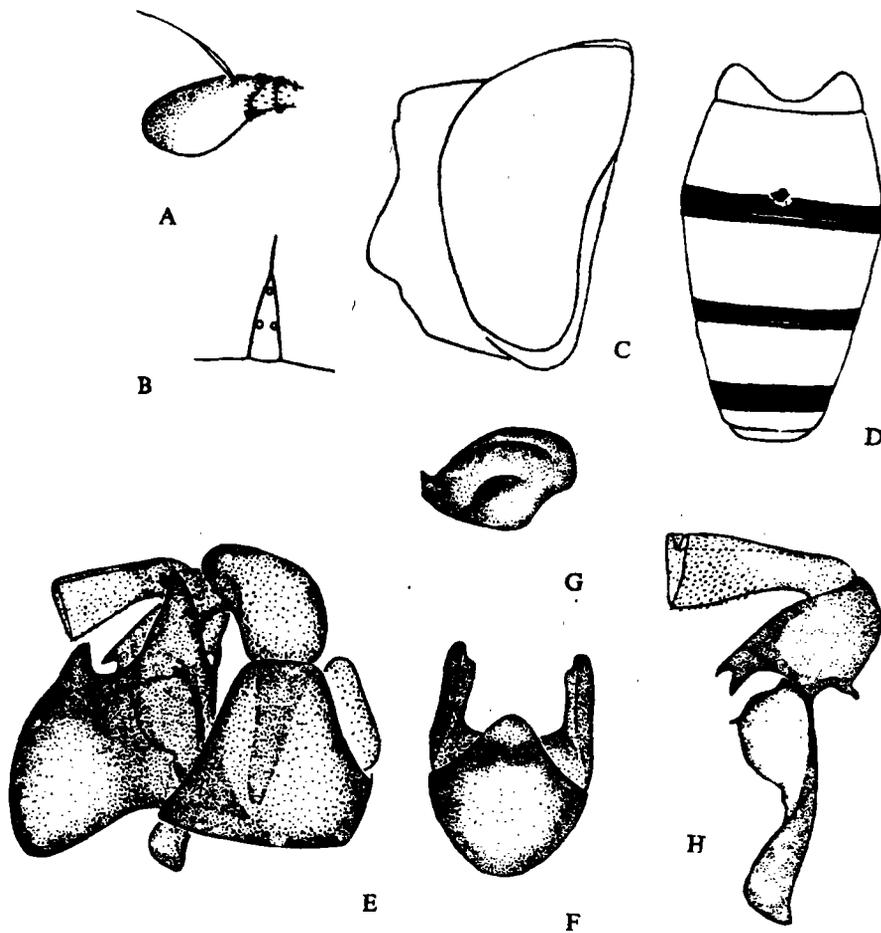


图1 毛缝带食蚜蝇 *Epistrophe setifera* Chu et He, 新种♂。

A.触角 (antenna); B.头顶 (vertex); C.头部侧观 (profile of head); D.腹部 (abdomen); E.外生殖器侧面观 (genitalia in lateral); F.第9腹板 (sternite 9); G.上叶 (superior lobe); H.阳茎 (aedeagus).

## 2 南京带食蚜蝇 *Epistrophe nankinensis* Chu et He, 新种

♂ 头顶三角区 (图2, B) 长约为宽的1.5倍, 黑色, 毛同色, 仅后缘被毛棕黄色。额角95度; 额黄褐色, 毛黑色, 密被黄色粉被; 新月片上侧亮黑色。颜面宽大 (图2,

D), 约为头宽的  $1/2$ , 中疣大而圆滑, 两侧被黄色长毛及黄色粉被; 口前缘黑色; 颊黄褐色。眼后区银灰色, 上下两端部被毛黄色, 中部灰白色。头部侧观如 (图 2, C)。腹眼裸, 接眼缝短于头顶的长度。触角 (图 2, A) 黄色略偏褐, 触角芒褐色。中胸背板黑色具金属光泽, 前方具二条明显的灰色纵带, 背板被毛黄色; 胸背两侧及小盾片暗黄色, 小盾片被毛黄色, 后端混有少量黑毛。胸侧板黄褐色; 腹板黑色, 被黄色长毛及黄色粉被。腹部 (图 2, E) 黄色, 第一背板中域黑色; 第 2 背板前后缘及中央成“T”字纹黑色; 第 3 背板前后缘

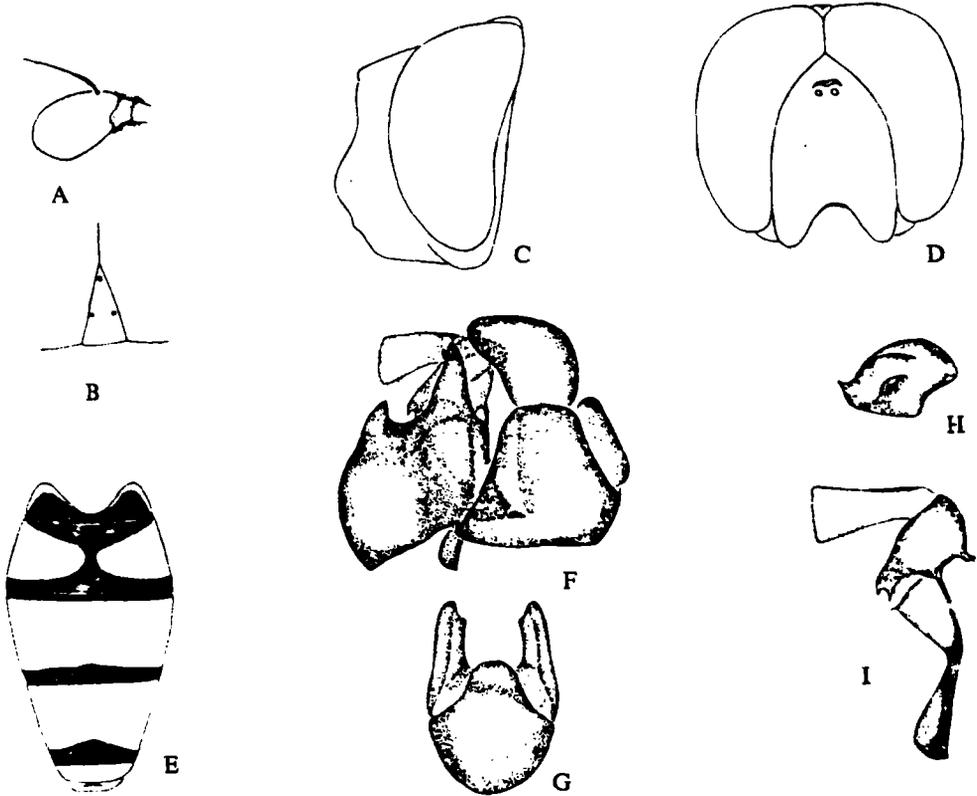


图 2 南京带食蚜蝇 *Epistrophe nankinensis* Chu et He, 新种 ♂:

A. 触角 (antenna); B. 头顶 (vertex); C. 头部侧观 (profile of head); D. 头部正面观 (head in frontal); E. 腹部 (abdomen); F. 外生殖器侧面观 (genitalia in lateral); G. 第 9 腹板 (sternite 9); H. 上叶 (superior lobe); I. 阳茎 (aedeagus).

各具一条黑色横带; 第 4 背板后方  $3/4$  处为黑色横带; 第 5 背板中央具“人”字纹黑斑。腹板黄白色。翅淡色, 脉褐色, 痣黄色。腋瓣及缘毛黄色; 平稀棒黄色, 端部色略深。前足、中足腿节基部及跗节背面淡褐色, 其余黄色; 后足腿节黄色, 被黑色短毛, 胫节及跗节褐色, 被黄色短毛。

外生殖器 (图 2, F-I): 侧尾叶宽大, 第 9 腹板宽 (图 2, G), 侧臂呈角状, 高高突起, 舌状突宽短, 顶端上缘向内略卷, 下方具细微横皱纹。上叶 (图 2, H) 的基前方呈尖

角状突出，外侧背突长而明显。阳茎（图2，I）的侧腹突上端齿粗短，下曲，下端齿较细长；腹缘具很多小齿；阳茎端喇叭状，背面上凹，端部2/3具细而密的微刺；阳茎内突细长，中部明显弯曲。

♀ 头顶宽约占头宽的1/5，黑色。额黄褐色，被黑色长毛和黄色粉被；新月片亮黑色。腹部第3、4背板的前后黑色横带内缘的中央呈角状内凹；第5背板中央为一条弧形黑斑。余特征同♂。

体长：12.5mm~13mm；翅长：12mm。

正模：♂，南京，1984-IV-15 储西平采；配模：♀，同正模；副模：6♂♂、2♀♀，同正模。

本种与属内其他种类的主要区别在于：♂额角较大；颜面宽以及雄虫的外生殖器形态。

### 3 华丽带食蚜蝇 *Epistrophe splendida* Chu et He, 新种

♂ 头顶（图3，B）狭长，长约为宽的三倍，黑色，被毛同色，仅后缘被毛黄色。额角约65度；额暗黄色，密被黄色粉被及黄褐色长毛；新月片及其上方呈半圆形黑色，具光泽。颜面自触角基下方明显向后倾斜，中疣光滑，其两侧密被黄色白色粉被及黄色长毛。口前缘亮黑色。颊区小，黄色。眼后区银灰色，被毛同色。头侧观如（图3，C）。复眼裸，接眼缝约与头顶等长。触角（图3，A）黄色；第1~2节端部的背面、腹面被黑色短鬃；第3节的端背面呈褐色；触角芒基部黄色，端部褐色。胸部背板黑色，具金黄色光泽；两侧及小盾片金黄色，被毛黄色，小盾片中后方被毛黑色；前、后胸侧板暗黄色，中胸侧板及腹侧板上部金黄色，覆金色粉被，被毛黄色；腹板黑色。腹部（图3，D）黄色；第2背板后缘为黑色横带，中央向前呈角状突出；第3背板前、后两端及第4背板3/4处为黑色横带；臀板中域黑色；被毛与背板同色，第4背板之后被毛均为黑色；腹板黄色。翅的基部及翅痣黄色，脉淡褐色，余透明。腋瓣及缘毛金黄色；平衡棒鲜黄色，端部色略深。足除后足腿节端部1/3、胫节和1~3跗节黑褐色外，均呈黄色；被毛同色。

外生殖器（图3，E-H）：侧尾叶宽大，呈圆角三角形；第9腹板（图3，F）的侧臂呈角状，高高突起；舌状突较宽、圆、下方具细微的皱纹；上叶（图3，G）上侧脊达其端部，外侧疣状突明显，前基部角状突出。阳茎基（图3，H）发达，侧腹突的背缘平直，腹缘无小齿突，两个端齿均呈前伸状态；阳茎端呈喇叭状，背面下凹，端部2/3密被微刺；阳茎内突板状，上宽下窄，中部略弯曲。

♀ 头顶宽约占头宽的1/6，单眼区隆起，黑色，被毛同色。额在新月片外侧黄色，余黑褐色。触角的第1~2节腹面及第3节的基腹面呈黄褐色，余均为黑色。腹部背板黄色，第2~4背板的后端、3~4背板的前端为黑色狭横带；第5背板中央为黑色弧形横条。余特征同♂。

体长：10~12mm；翅长：10mm。

正模：♂；南京，1984-8-V 储西平采。配模：♀；同正模；副模：♂；同正模。

本新种与属内其它种类的主要区别在于：头顶狭长；中胸背板、侧板色泽艳丽；腹部斑纹结构以及雄虫外生殖器形态。

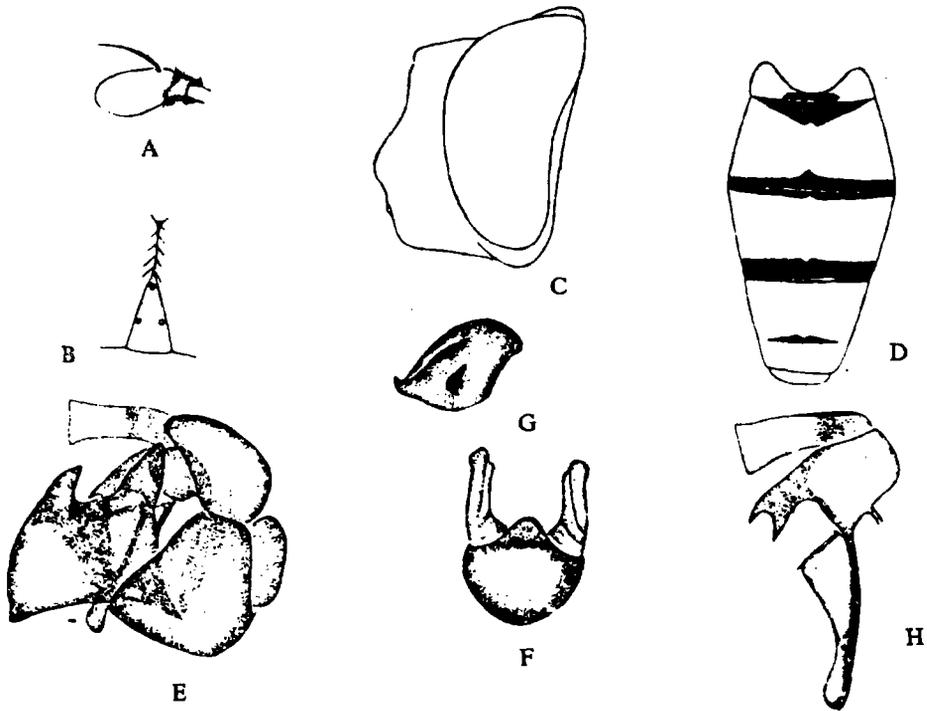


图3 华丽带食蚜蝇 *Epistrophe splendida* Chu et He, 新种♂:

A.触角 (antenna); B.头顶 (vertex); C.头部侧面观 (profile of head); D.腹部 (abdomen); E.外生殖器侧面观 (genitalia in lateral); F.第9腹板 (sternite 9); G.上叶 (superior lobe); H.阳茎 (aedeagus).

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## THREE NEW SPECIES OF THE GENUS *EPISTROPHE* WALKER (DIPTERA: SYRPHIDAE) FROM CHINA

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### ABSTRACT

Three new species of the genus *Epistrophe* Walker (Diptera: Syrphidae) are described in this paper. All specimens are deposited in the insect collection of the Institute of Plant Protection, Jiangsu Academy of Agricultural Sciences.

#### 1 *Epistrophe setifera* Chu et He sp. nov.

Male: Frons dull yellow, heavily pale-dusted and black-haired, lunula brown. Face yellow with yellowish hairs except bare central prominence. Holoptic suture with a few black hairs, Antenna unicolorous yellow, the third segment elliptical. For profile of head see fig. 1C. Mesonotum brilliant black, yellow-haired and dusted. Scutellum yellow with yellow hairs, mixed with some black ones in the posterior edge. Wing pale yellow, stigma yellow. Legs yellow, except hind tarsis darkened. For abdominal pattern see fig. 1D. Sternite pale yellow.

Genitalia: See figs. 1E-1H. Surstylus large and broad, typically shaped. Lingula short and broad; surperior lobes rather large. Distal portion of aedeagus trumpet-shaped, apically with strong minute erect spinules. Length: 13 mm; Wing: 11 mm.

Holotype: ♂, Ning'an (Jinbo Lake), Helongjiang prov. 7-VIII-1989, Collected by He Jilong.

This new species differs from other species of the genus in following respects: The large body size, holoptic suture with a few black hairs and difference abdominal pattern and the shape of pyxis of the male genitalia.

#### 2. *Epistrophe nankinensis* Chu et He sp. nov.

Male: Frons brownish yellow, black-haired and heavily yellow-dusted, lunula and upper portion shining black. Face very wide, about one half width of head, yellow, heavily pale-dusted and yellow-haired except for the bare central prominence, upper mouth edge darkened. Antenna yellow, dorsal part of the third segment with a little brown. For profile of

head see fig. 2C. Mesonotum shining black. Scutellum dull yellow with yellow hairs, mixed with some black ones in posterior portion. Wing clear, stigma yellow, Legs mainly yellow, basal one fifth of anterior and middle femora, and dorsal part of the tarsis darkened: hind femora short black-haired, hind tibiae and tarsis brown with yellow hairs. For abdominal pattern see fig. 2E. Sternite pale yellow.

Genitalia: See figs. 2E–2I. Surstyli large and broad, typically shaped: Lingula broad, truncated apically: superior lobes large. Distal portion of aedeagus trumpet-shaped with dorso–posteriorly convex, apically two third with minute erect spinules.

Female: Similar to the male. Vertex about one fifth width of head. Frons yellowish brown. Antenna yellow with a little darker.

Length: 12.5–13 mm; Wing: 12mm.

Holotype: ♂, Allotype: ♀, Paratypes: 6 ♂ 1 ♀; Nanjing, 15–IV–1984; Collected by Chu Xiping

The new species differs from the other species of the genus in the following respects: The larger frontal angle, widened face and the difference of pyxis and ligula of the male genitalia.

### 3 *Epistrophe splendida* Chu et He sp. nov.

Male: Frons dark yellow, black-haired and heavily yellow-dusted, lunula and upper portion shining black. Face retract, yellow with densely yellow hairs and dust except for the bare central prominence, upper mouth edge black. Antenna yellowish with the third segment dorso–apically dark brown. For profile of head see fig. 3C. Mesonotum shining golden brilliant, yellow-haired and dusted Scutellum yellow with posterior half black-haired. Wing clear, basal part and stigma yellow. Legs yellow, except apical one third of hind femora, hind tibiae and 1–3 tarsi brownish black. For abdominal pattern see fig. 3D, Sternite pale yellow.

Genitalia: See figs. 3E–3H. Surstylus large and broad, typically shaped; Lingula broad, truncated apically; superior lobes large. Distal portion of aedeagus trumpet-shaped with dorso–posteriorly convex, apically two third with minute erect spinules.

Female: Similar to the male. Vertex about one sixth width of head. Frons black brown, the out-sides of lunula yellow, Antenna black with 1–2 segments ventrally and third segment base–ventrally brownish yellow.

Length: 10–12 mm; Wing: 10mm.

Holotype: ♂, Allotype: ♀, Paratype: ♂: Nanjing, 8–V–1984; Collected by Chu Xiping

This new species differs from the other species of the genus in the following respects: Vertex is long and narrow. Mesonotum and mesopleuron are golden brilliant, abdominal pattern and the shape of pyxis of the male genitalia.

**Key words** Diptera; Syrphidae; *Epistrophe*; New species; China