

为害柑桔春芽的达瘿蚊属二新种

(双翅目:瘿蚊科)

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摘要 广东省一些县市的柑桔春芽期受到瘿蚊科幼虫的危害,经调查与饲养发现有两个同属的近似种混合发生。本文为分类鉴定部分,优势种被命名为桔芽达瘿蚊(*Dasineura citrigemmia* Yang et Tang),另一种则称为桔李达瘿蚊(*D. citrigemina* Yang et Tang),描述了新种的成虫和幼期,与近似种进行了比较。

关键词 双翅目;瘿蚊科;桔芽达瘿蚊;桔李达瘿蚊

1 桔芽达瘿蚊 *Dasineura citrigemmia*, 新种(图1—16)

1.1 成虫(图1) 体长♂0.7~1.2mm,♀0.9~1.2mm;体桔红色,多黑色细毛。头部较小,头顶色暗褐;复眼黑色,侧视狭长而前缘凹,眼桥宽大约占5个小眼面。下颚须(图8)4节,基部节粗短,第2节最长,第3节最短,端节末端钝圆。触角2+14节,柄节粗大呈球形、色淡而无长毛;梗节小而色淡、有几根长毛;鞭节均密生微毛及长毛而呈黑褐色,雌雄异型;♂鞭节1—XII为单结状,各呈球形而端部具长颈,球部有感觉带两圈和许多突起着生长毛,毛最长的可达节宽的3倍;鞭节XIV(触角的末节)呈卵形而无颈,与其他节等长或稍短(图3—4)。♀鞭1—XII均呈筒形,长大于宽,端部具短颈,各节也有两圈感觉带和生有长毛的突起,但毛的长度仅略长于节宽,鞭XIV等于或短于其他节、顶部略呈圆锥形(图5)。

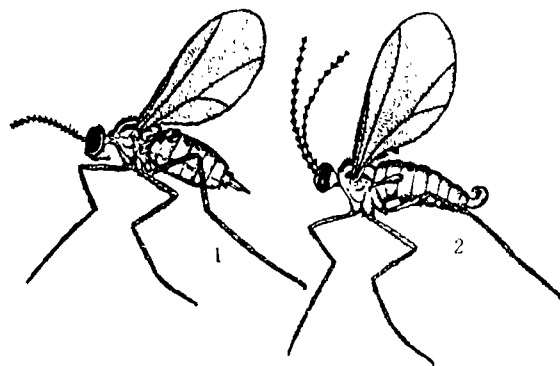


图1.2 桔芽达瘿蚊 *Dasineura citrigemmia*, sp. n.
1. 雌成虫; 2. 雄成虫

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胸部粗壮, 胸背有黑色宽纵带3条, 中央的位置较高而直达前胸。翅长1.1~1.5 mm; 宽0.5~0.7 mm; 翅透明但密布黑色细毛, 脉和翅缘的毛很显著; 翅脉简单, C沿前缘而止于 R_5 末端, R_5 起自翅基而直伸翅端, 但止于前缘, M_{3+4} 与Cul组成叉状脉。平衡棒黄褐色, 膨大部呈球形。足细长, 3对相似而后足略长, 长约2 mm左右; 足上密生黑色细毛, 足端部色较深, 腿节与胫节约等长, 胫节约等于跗节1+2之和, 跗节1极短而跗2最长与跗3~5节之和约等; 爪的基部具一大齿, 中垫大而圆突。

腹部♂长筒形, 尾器(图9)黑褐色; 基节粗大, 端节狭长而较直, 末端黑色部分略钩突; 阳茎端部呈锥状, 稍长于阳茎基。♀腹部粗大而腹端渐细, 产卵管细长可以套缩, 其基部呈长筒形较规则(图7)。

1.2 幼虫(图11~12) 老熟幼虫体长1.5~1.8 mm, 长卵形, 乳白色; 前胸腹面的剑骨褐色, 端部略粗、顶部突出双叶呈叉状(图13); 前胸气门及8对腹气门均突出, 以后气门最显著, 腹端两侧各有3个并列的齿突。

1.3 蛹(图16) 体长1.2~1.5 mm, ♂蛹较小且足伸达腹端; ♀蛹较大, 足仅伸过第五腹节。触角基突呈短圆锥体状, 其背面有一大乳突, 腹面有一小乳突; 头顶有一对细长的毛突, 前胸气门突伸粗大的长管。

1.4 载名模式 正模(♂), 配模(♀) 广东广州石牌1989.3, 汤忠琦采。副模 ♂♂♀♀ 20幼虫, 10蛹, 采集人、采集地点同正模。

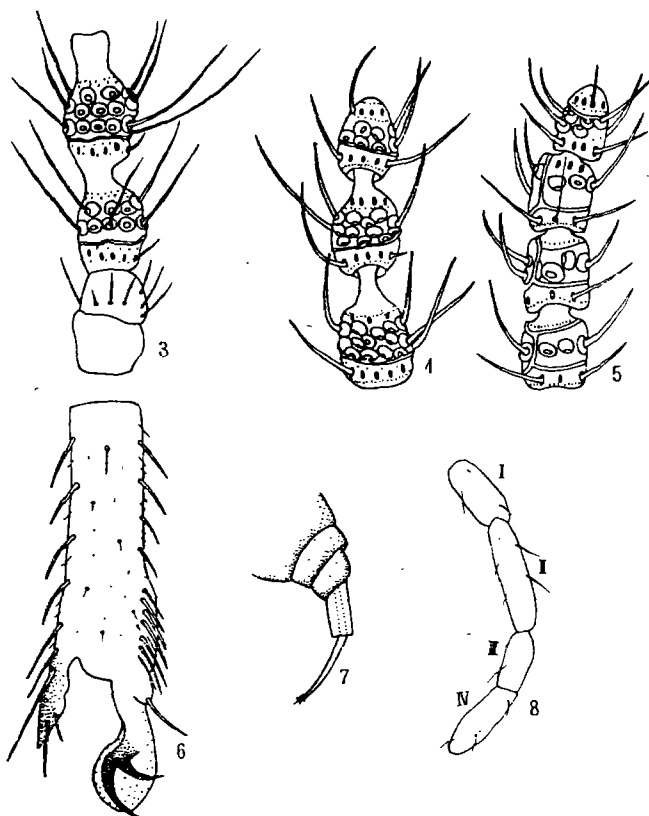


图3~8 桔芽达瘦蚊形态

3. 雄蚊触角基部节 4. 雄蚊触角端部节 5. 雌蚊触角端部节
6. 跗节(示爪) 7. 雌蚊腹末端 8. 下颚须

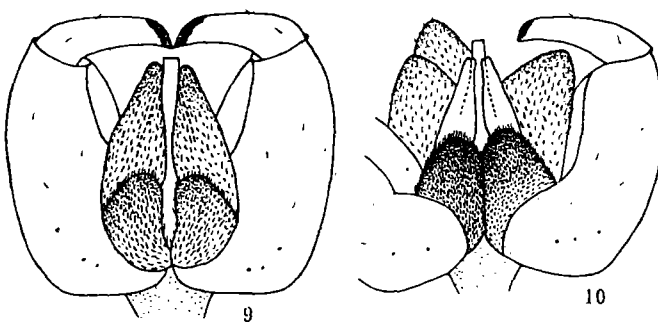


图9~10 两种瘦蚊雄虫尾器

9. 桔芽达瘦蚊 10. 桔李达瘦蚊

1.5 寄主植物 柑、橙。寄生部位:春芽。

1.6 讨论 新种是继柑桔花蕾蛆(*Contarinia citri* Barnes)之后的第2种为害柑桔蕾芽的瘿蚊^[4],曾被暂定为 *Contarinia* sp. (杜佩璇等, 1987)^[3]。从翅脉 R_s 止于前缘、爪具齿、雄触角单结型等而确定是瘿蚊亚科中不同的总族(Supertribe), 隶于达瘿蚊属(*Dasineura* Rondani)。虽然属名原意为蓬松的(*dasi*—)翅脉(*neura*), 而谐音称为达瘿蚊属, 是广布的大属, 包括一些重要害虫。为害柑桔的只有印度的 *Dasineura citri* (Rao et Grover), 该种原作为 *Pectinodiplosis* 属而记述的(Rao and Grover, 1959)^[5], 后来又被描记为 *Dasineura citri* Grover et Prasad 1966; 经 Gagne (1973) 整理将前者重新组合, 而后者作为新异名^[8]。印度的柑桔达瘿蚊胸部是褐色的, 我国的新种是黄褐色有三条黑纵带极易区分, 下颚须、触角、外生殖器均明显有别, 确定是不同的种^[9~11]。新种以 *Citri-*(桔) *gemina* (芽) 来命名, 而混生的另一新种则以 *Citri-*(桔) *gemina* (孪生的) 为名, 其区别如后。

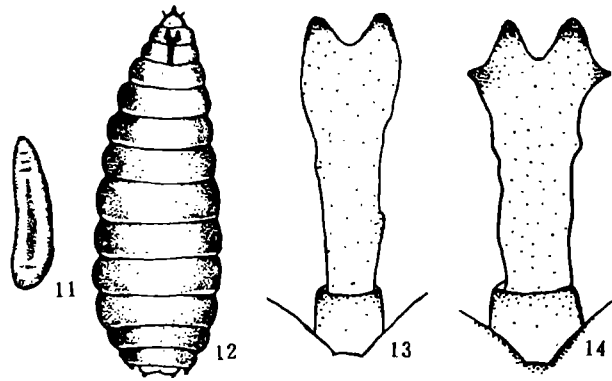


图11~14 两种瘿蚊幼期形态

11. 一龄幼虫 12. 老熟幼虫 13. 桔芽达瘿蚊幼虫胸骨片
14. 桔孪达瘿蚊幼虫胸骨片

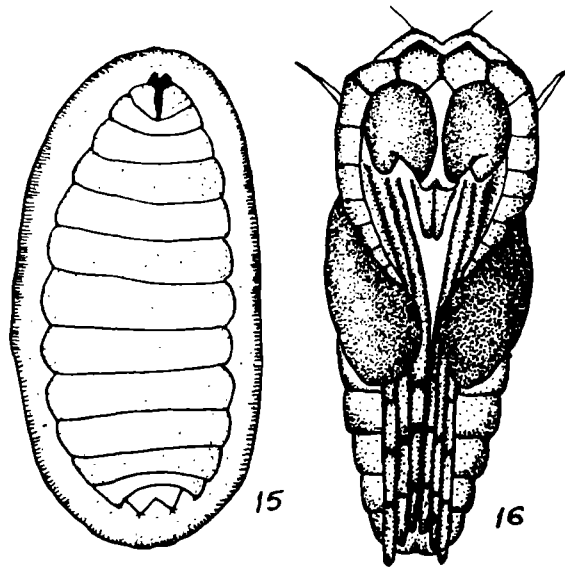


图15-16 桔芽达瘿蚊的蛹茧

15. 休眠的幼虫及茧 16. 雄蛹

2 桔孪达瘿蚊 *Dasineura citrigemina*, 新种(图17-21)

2.1 成虫 体长♂ 1.1~1.3 mm, ♀ 1.2~1.5 mm; 体桔红色, 多黑色细毛; 与前种非常相似, 但体型较大。头部主要区别为下颚须(图21)的第4节明显长于第3节, 且端部较尖。触角(图17-19)2+14节, 但鞭节的最后2节完全愈合成一节而其间无细颈, 感觉

带多至3或4圈,两性均如此;♂鞭节上的长毛最长的可达节宽的四倍。胸部和翅足的差别不明显,腹部则从腹端可以区分。♂尾器(图10)的端节呈锥状,基部宽大而端部渐尖细,黑色部分不明显钩突。♀产卵器(图20)的基部不规则,有膨大部分。

2.2 幼虫 一般特征与前种相似,但从前胸腹面的褐色剑骨易于区分。剑骨的两侧不整齐,端部深凹为一对兴突的叉状叶,且旁伸一齿突(图14)。

2.3 载名模式 正模♂,配模♀,副模♂♂、♀♀,20 幼虫;广东广州石牌 1988 年 3 月汤忠琦采

2.4 寄主植物 同前种。

2.5 讨论 此新种与前种混合发生,经详加比较了大量标本,除触角端节明显可分外,外生殖器以及幼虫的剑骨也有显著差别。个体数量虽不及前种之多,但也占一定比例,故确定为不同的两个近似种。

以上2新种的载名模式标本分藏在北京农业大学及华南农业大学的昆虫标本室。

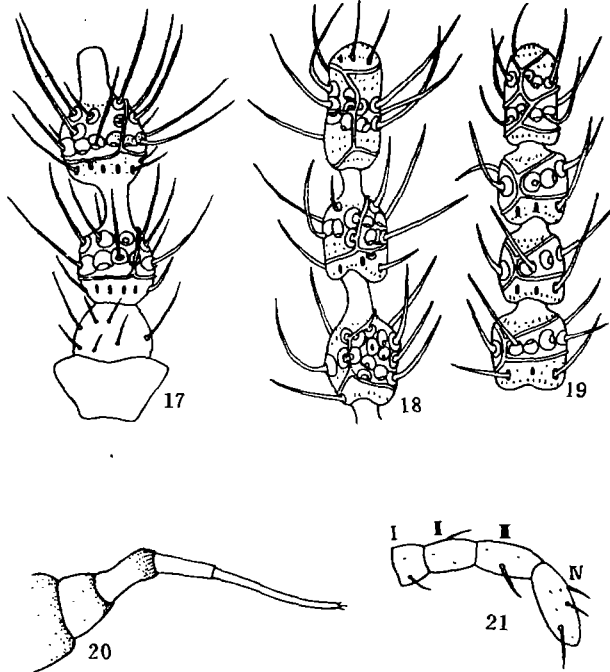


图 17—21 桔李达瘿蚊形态

17. 雄蛾触角基部节 18. 雄蛾触角端部节
19. 雌蛾触角端部节 20. 雌蛾腹部末端及产卵器 21. 下颚须

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TWO NEW SPECIES OF THE GENUS *DASINEURA* INJURIOUS TO CITRUS
FLUSH (Diptera: Cecidomyiidae)

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Abstract Another species of Citrus flush gall midge was found infesting cultivated Citrus in Guangdong Province of China recently. Specimens reared from larvae for identification, revealed two species of the genus *Dasineura* Rondani occurring together, both of which are new to science and described in this paper. The namebearing type specimens are deposited in the Insect Collections of Beijing Agricultural University, and the South China Agricultural University respectively.

1. *Dasineura citrigemmina* Yang et Tand, sp. Nov. (figs. 1—16) Holotype ♂, allotype ♀, and paratypes ♂ ♂, ♀ ♀, 20 larvae, 10 pupae, at Shipai, Guangzhou City, Guangdong Province, China. March 1989 collected and reared by Tang Zhongqi.

Adult: Body length ♂ 0.7—1.2 mm, ♀ 0.9—1.2 mm; body tangerine in colour, covered with black hairs. Thorax with three black distinct longitudinal taenias on the dorsum. Maxillary palp 4 segments, the second being the longest, and the last segment obtuse round (fig 8). Antenna 2+14. The scape thick and globose, pale in colour and with no hairs (fig 3). Flagellum of ♂ with small hairs and long hairs, each of the 1st—8th segments being simple nodiform, globose and having a long neck on the apex. The last segment of antenna ovate and with no neck (fig 4). The ♀ 1st—8th segments of flagellum all cylindrical, each with a short neck at the apex, and the last segment slightly shorter than or as long as the others. The apical part slightly conical (fig 5). Wing length 1.1—1.5 mm, width 0.5—0.7 mm. Venules simple, the C venules running along anterior edge to end in R_5 , the R_5 venules stopping at the exterior edge of the wing. M_{3+4} and Cu1 form a furcal venule. Three pairs of legs slender, length about 2 mm, the base of the claw having a big dens (fig 6). Abdomen cylindrical. Clasp filament black-brown in colour, coxa thick, terminalia long, narrow and straight. Aedeagus conical, and slightly longer than phallobase (fig 9). Ovipositor slender and can telescope (fig 7).

Larvae: Body length 1.5—1.8 mm, long ovate form, Profurca Y form (fig 13).

Pupa: Body length 1.2—1.8 mm. Both sides having a protuberance. The thick prothoracic spiracles exert like tubules. ♂ Pupal leg extend to the distal end of abdomen (fig 16), ♀ pupal leg extend to the 5th urite.

2. *Dasineura citrigemina* Yang et Tang, sp. nov. (fig 17—21)

Morphology like the above, but differences in the last segment of adult antenna (fig 7—19), coxa (fig 10) and profurca of larvae (fig 14).

Key words Diptera; Cecidomyiidae; *Dasineura citrigemmina*; *Dasineura citrigemina*