

# 木棉织蛾与肉桂木蛾研究\*

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**摘要** 本文记述了小蛾类昆虫的两个种: 其中危害木棉的木棉织蛾是新记录种, 危害肉桂的肉桂木蛾是新种。

**关键词** 木棉织蛾; 肉桂木蛾; 木棉; 肉桂

木棉树 *Bombax ceiba* Linnaeus 为特种经济树, 所产木棉为军用物资并能制作高级床垫、枕心, 对人体有保健作用。肉桂 *Cinnamomum loureirii* Nees 和香樟 *Cinnamomum camphora* Nees 同属樟科植物, 肉桂是名贵中药, 香樟可制樟脑, 供药用和工艺用。多年来, 它们分别遭受木棉织蛾和肉桂木蛾的严重危害。尽管这两种害虫的生物学和防治已有过报道, 但种名问题一直没能解决。经解剖研究: 木棉织蛾是个新记录种, 肉桂木蛾是个新种<sup>[1~3]</sup>。现分别记述如下。

## 木棉织蛾 *Tonica niviferana* Walker 新记录种

翅展25~33 mm, 头部白色。唇须向上曲超过头顶, 第二节长、白色, 末节狭长、黑褐色, 基部有宽鳞片丛。胸部背面白色, 有分散黑褐色宽鳞片和4撮白褐色鳞片丛。前翅白色, 前缘有黑褐色基斑和中带; 基斑中下部与中带间各有一白色竖鳞丛; 中带里有5个竖鳞丛; 外缘鳞片黄褐色, 向内有6块黑褐斑。后翅银淡黄色, 翅顶黄褐色。腹部黄褐色, 两侧有黑斑, 末端黑色, 有浅黄色长毛丛(易于脱落)。胸足黑褐色, 有淡黄色斑。雄性外生殖器: 爪形突长圆形; 颚形突两臂在中部膨大呈球状汇合成U字形, 表面有许多粗短毛; 抱器瓣强烈几丁质化; 阳茎圆柱状, 基部粗、端部细。雌性外生殖器: 后表皮突是前表皮突长的4倍; 交配孔外露; 交配囊袋状; 囊突一枚, 牛角状, 基部有短刺。

分布: 云南勐崆, 福建福州, 广东广州, 海南尖峰岭; 印度, 锡金。

## 肉桂木蛾 *Thymiatrix loureiriicola* Liu 新种

翅展♂36~42 mm, ♀43~50 mm, 头部灰黄色。触角鞭节黄褐色, 柄节淡黄褐色。唇须灰黄色, 基部黄褐, 第二节是末节的两倍长。胸部和翅基片银白色, 有些鳞片末端呈褐色。腹部黄褐色, 背面深、腹面浅、两侧更浅。前翅狭长, 末端平截; 银白色, 有不规则深褐斑点; 前缘、中室中部和端部深褐色略向后延伸; 顶角至臀角间有6~7枚黄褐色斑点。 $R_4$ 和 $R_5$ 脉共柄, 基部又与 $R_3$ 脉共柄,  $M_2$ 脉基部靠近 $M_3$ 脉。后翅灰褐色;  $R_5$ 和 $M_1$ 脉共柄,  $M_2$ 脉基部靠近 $M_3$ 脉,  $M_3$ 与 $Cu_1$ 脉共柄。前、中足灰褐色, 后足黄褐色。中胫节端距两枚, 内长外短; 后胫节中部和端部各有距两枚, 内距是外距长的2倍。雄性外生殖器: 爪形突呈三角

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标本承袁德成同志在大英博物馆与模式种核对, 成虫图承魏梅同志绘制, 谨此一并致谢!

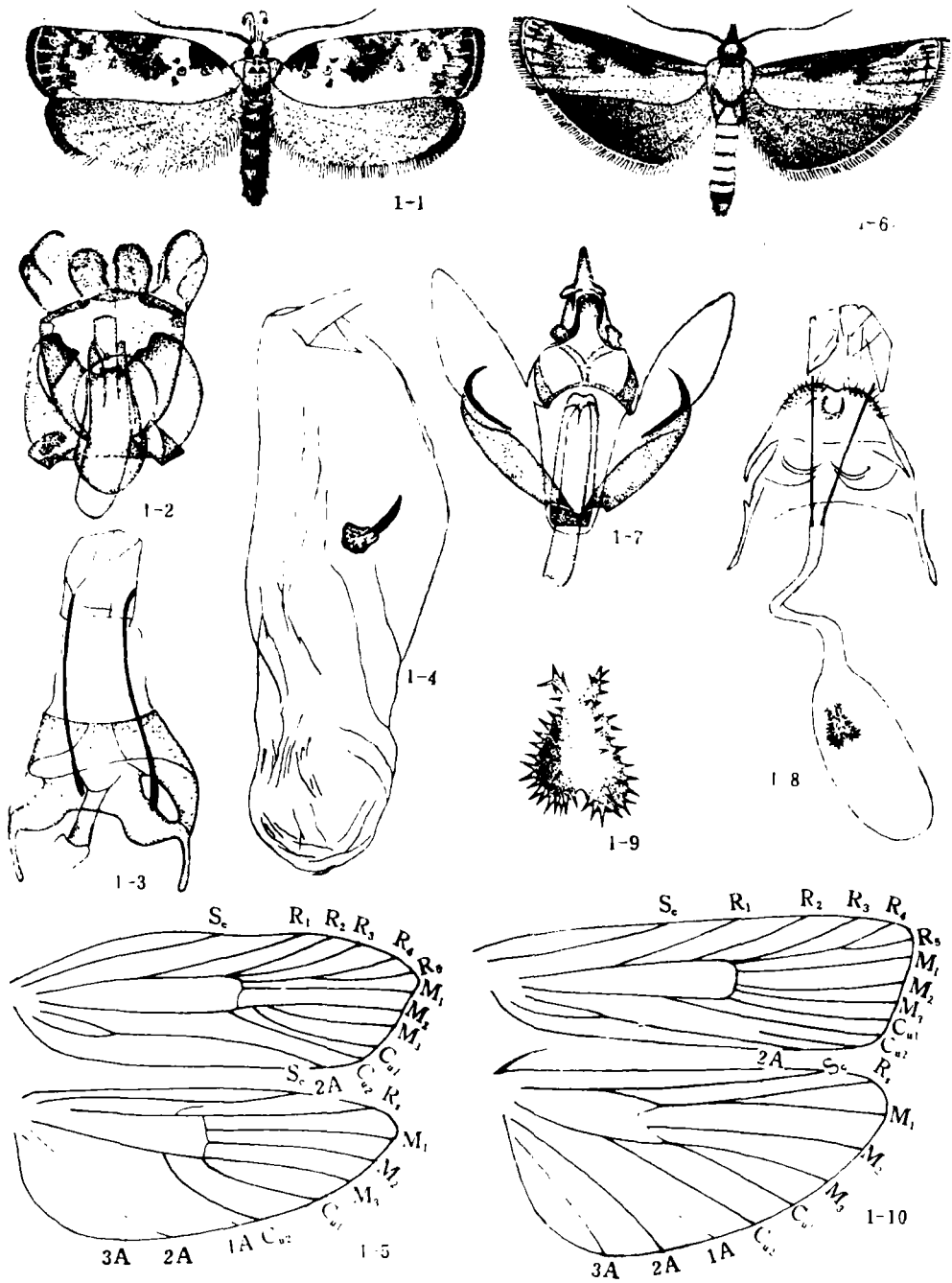


图1 木棉织蛾 *Toxica niviferana* Walker, 新记录种: 1-1 成虫; 1-2 雄性外生殖器; 1-3 雌性外生殖器(产卵瓣及交配孔); 1-4 雌性外生殖器(交配囊及囊突); 1-5 翅脉相

图2 肉桂木蛾 *Thymiatrix loureiriicola* Liu, 新种: 1-6 成虫; 1-7 雄性外生殖器; 1-8 雌性外生殖器; 1-9 囊突放大; 1-10 翅脉相

形，基部有 2 个耳状突；颚形突两臂汇合后向上举，末端圆钝；抱器瓣梭状，抱器腹几丁质化程度强，端部形成强烈弯钩；阳茎细长，外面有长阳茎端环管，基部有扁长方形阳茎基环。雌性外生殖器：后表皮突是前表皮突长的 2 倍；囊突 1 枚，呈 X 状，一端尖，另一端粗大圆钝，表面多刺。

本种与 *T. melitacma* Meyrick 十分近似，主要区别表现在雄性外生殖器爪形突基部有 2 个耳状突和抱器腹末端的强烈弯钩。

正模♂：江西九连山，1975·Ⅵ·9，宋士美采。

配模♀：福建云霄，1979·Ⅴ·22，吴志远采。

副模 16♂♂、4♀♀：上海，1933·Ⅵ·29。浙江（宁波，1941·Ⅲ·18）。江西（宜春，1978·Ⅶ·10；南昌，1974·Ⅵ·18；弋阳，1984·Ⅵ·4；九连山 1975·Ⅵ·7）。福建（云霄，1979·Ⅴ·22）。海南（万宁，1963·Ⅴ·27）。广西（桂林，1963·Ⅴ·12~16；龙胜，1963·Ⅵ·6）。

模式标本保存在中国科学院动物研究所昆虫标本馆。

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## *A Study of Microlepidoptera (Oecophoridae and Xyloryctidae) Damaging Bombax and Cinnamomum*

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**Abstract** *Bombax ceiba* Linnaeus is a special kind of economic plant. *Cinnamomum loureirii* Nees is a rare traditional Chinese medicine. Both of them are damaged by small caterpillars over many years. Through identification, one is a new record and the other is new to science.

Type specimens are preserved in the Institute of Zoology, Academia Sinica.

1. *Tonica niviferana* Walker, n. rec. (Oecophoridae)

Distributions: Hainan Province (Jianfengling), Yunnan Province (Menglung), Fujian Province (Fuzhou), Guangdong Province (Guangzhou); India, Sikkim,

2. *Thymiatria loureiriicola* Liu, sp. nov. (Xyloryctidae)

Wing expanse: ♂ 36~42 mm, ♀ 43~50 mm. Head greyish-yellow. Flagellum of antenna yellowish-brown, with cilia, scape light yellowish-brown. Palpus greyish-yellow, curled upward. Thorax and tegulae silver white. Abdomen yellowish-brown: dark on dorsal, light on ventral and more lighter on both sides. Forewing elongate-truncate, long and narrow, dilated, broadest at termen; silver white; costa as far as upper edge of cell irregularly suffused with dark brown; 6~7 yellowish-brown spots across the inner margin of termen. Hindwing, prolegs and mesolegs greyish-brown, metalegs yellowish-brown. Male genitalia: Uncus triangular, with two ear-like protuberance on the base; gnathos well-developed; valva broad, cucullus somewhat pointed; sacculus chitinous and strongly hooked terminally; aedeagus long. Female genitalia: Postapophyses 2 times longer than anapophyses; one signum X-shaped, with numerous spines.

It is closely allied to *T. melitacma* Meyrick in appearance but differs from the later by two ear-like protuberances on the base of uncus and hook at the end of sacculus of male genitalia.

Holotype ♂: Jiangxi Province (Jiulianshan, 9. June 1975, Song Shimei). Allotype ♀: Fujian Province (Yunxian, 22. May 1979, Wu Zhiyuan). Paratypes 16 ♂♂, 4 ♀♀: Shanghai (29. June 1933), Zhejiang Province (Ningbo, 18. March 1941), Jiangxi Province (Yichun, 10. June [1978, Nanchang, 18. June [1974, Yiyang, 4. June 1984, Jiulianshan, [7. June 1975), Fujian Province (Yunxian, 22. May 1979), Hainan Province (Wanning, 27. May 1963), Guangxi Autonomous Region (Guilin, 12~16. May 1963, Longshen, 6. June 1963).

**Key words** *Tonica niviferana*; *Thymiatria ioureiriicola*; *Bombax ceiba*; *Cinnamomum loureirii*