

中国圆角卷蛾属研究(鳞翅目:卷蛾科)

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圆角卷蛾属 (*Eboda* Walker) 在全世界已知有 20 种左右, 主要分布在东洋区和澳洲区, 其中爪哇有 6 种, 印度有 4 种; 中国过去记录只有一种, 即圆角卷蛾 (*Eboda celligera* Meyrick), 主要分布在我国福建、广东(包括海南岛)等地, 是荔枝上一大害虫。作者等最近两年多来在云南昆明和广东海南岛等地发现有两个新种和一个新纪录。模式标本等均保存在中国科学院动物研究所昆虫标本馆。

属 征

下唇须长度是复眼直径的 1.5 倍, 基节短, 中节基部细、端部膨大, 末节呈指状。前翅长卵圆形, 前缘基部弧度大, 顶角圆, 外缘短, 臀角不明显。前翅 12 脉长过前缘中点, 10 脉基部距 11 脉和 9 脉等远, 各段长于 8—9 脉, 7 脉达于外缘, 5 脉和 6 脉平行, 4 脉和 3 脉有 1/4 共柄, 2 脉基部和 11 脉基部遥相呼应。后翅宽, 顶角圆, 略突出。7 脉和 6 脉基部十分靠近, 5 脉消失, 4 脉和 3 脉同出一点。体色大多为褐色, 有点状行斑或不规则条斑。

雄性外生殖器: 背兜发达, 顶部往往形成不发达的爪形突或一对侧突。尾突小或退化, 个别种类发达并有长刺状毛。抱器瓣宽; 抱器背形状变异, 一般细长而弯曲, 末端有时略肿大; 臂 (brachiola) 细长, 膜质、有毛; 抱器腹基部宽、端部有不同变化。上面有长圆形毛片。阳茎短粗, 阳茎针 1—2 枚。

雌性外生殖器: 产卵瓣宽。前表皮突短, 后表皮突长。交配孔外围, 前、后阴片和导管端片发达。囊突存在时多呈星状。

检 索 表

- ① 背兜发达, 顶部爪形突呈几丁质化长柄, 末端膨大; 两旁有一对侧突, 末端尖而弯曲.....
..... 矛圆角卷蛾 *E. doryphora* (新种) (图 2)
- 背兜顶部无长柄, 只在两旁有一对侧突, 几丁质化程度差.....②

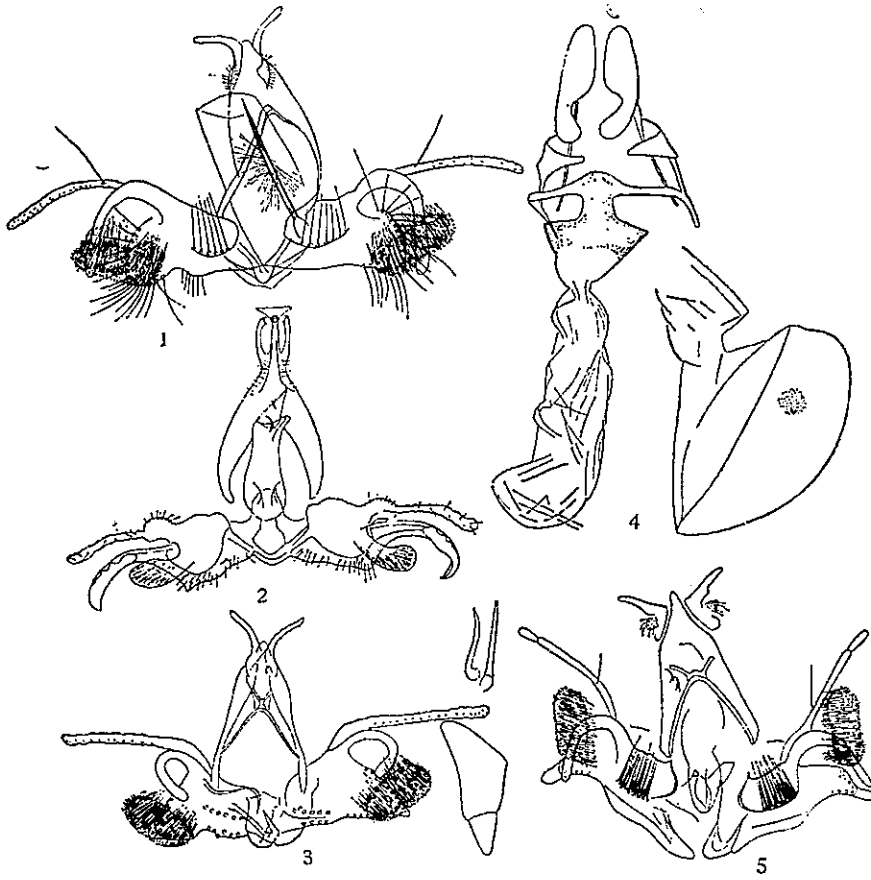


图 1—5 四种圆角卷蛾的外生殖器

1. 针圆角卷蛾 *Eboda dissimilis* sp. nov. 雄性外生殖器
2. 矛圆角卷蛾 *Eboda doryphora* sp. nov. 雄性外生殖器
3. 圆角卷蛾 *Eboda celligera* Meyrick 雄性外生殖器
4. 圆角卷蛾 *Eboda celligera* Meyrick 雌性外生殖器
5. 印圆角卷蛾 *Eboda assamica* Razowski 雄性外生殖器

- ② 各侧突呈直角三角形; 阳茎针短小, 不发达……………印圆角卷蛾 *E. assamica* (新纪录) (图 5)
 各侧突呈条状, 略有弯曲; 阳茎针发达……………③
- ③ 阳茎针两枚……………圆角卷蛾 *E. celligera* (图 3, 4)
 阳茎针一枚……………针圆角卷蛾 *E. dissimilis* (新种) (图 1)

种的记述

1. 圆角卷蛾 *Eboda celligera* Meyrick (图版 I: 2, 4)

Eboda celligera Meyrick, 1918, Exot. Micro., 2: 170.

分布: 广东(广州、海南岛)、福建(莆田)、台湾; 印度, 印度尼西亚(爪哇)等地。

寄主: 在中国主要为害荔枝 (*Litchi*), 在爪哇为害红毛丹 (*Nephelium lappaceum*)。

2. 印圆角卷蛾 *Eboda assamica* Razowski (新纪录) (图版 I:1)

Eboda assamica Razowski 1964, Acta zool. Crac., 9: 371, figs. 20, 21.

分布: 广东(海南岛); 印度(阿萨姆)。

3. 针圆角卷蛾 *Eboda dissimilis* 新种 (图版 I:3)

前翅长椭圆形, 长 6.5 毫米, 宽 2.5 毫米 (mm), 基部弧度大, 近翅端 1/3 处最宽, 翅外缘呈圆弧形。前缘有深褐、土黄两色相间组成的窄条斑; 外缘深褐色; 由前缘 2/3 斜向后缘 1/3 有一深褐色斜条斑, 将翅面划分为两部分: 前面一部分大, 基部一部分小, 呈棕色, 中间夹杂有许多与外缘平行的不规则短条斑。

雄性外生殖器 (图 1): 背兜发达, 顶部形成不发达的一对侧突。尾突小, 生有长毛。抱器背细长而向前向下弯曲, 端部略有肿大, 臂细长。抱器腹基部宽, 端部呈桃形, 边缘生有许多粗长毛, 近端部上面覆盖有长圆形毛片。阳茎粗大, 内有长壮阳茎针一枚。

正模♂: 云南 (昆明温泉, 1982 年 3 月 29 日)。

本种雄性外生殖器与圆角卷蛾 (*E. celligera*) 十分近似, 但除翅斑彼此有明显区别外, 本种阳茎针只有一枚。

4. 矛圆角卷蛾 *Eboda doryphora* 新种 (图版 I:5,6)

前翅长椭圆形, 长 6.5 毫米, 宽 2.7 毫米, 基部弧度大, 以翅中部最宽。前翅淡褐色, 前缘有深褐斑, 衬托出前缘成对的钩状纹。中室中部上下有不规则深褐斑, 其他斑纹不明显。后翅深褐色。

雄性外生殖器 (图 2): 背兜发达。爪形突细长, 几丁质化程度强, 末端弯曲而扩大呈三角形。侧突有点发达, 略呈弧状, 位于爪形突两侧, 端部平截, 内角呈弯钩状。抱器背短而弯曲, 臂细长。抱器腹几丁质化程度强, 基部宽, 中部细, 末端扩大呈弧形片, 边缘有锯齿。阳茎针两枚, 半角状, 一大一小。

正模♂: 广东(海南岛蒙水), 1984 年 3 月 13 日, 白九维。

本种与同属其他种的主要区别表现在雄性外生殖器的爪形突和抱器腹末端的特殊结构上。

A STUDY OF THE CHINESE *EBODA* WALKER (LEPIDOPTERA: TORTRICIDAE)

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About 20 species of *Eboda* Walker have been recorded in the world, which are distributed in Oriental and Australian Regions, within them, 6 species in Java, 4 species in India, but only one species *Eboda celligera* Meyrick recorded in China. This species has

been known as a pest of litchi in Fujian and Guangdong (including Hainan Island) provinces.

This paper records four species of Chinese *Eboda* Walker collected by the authors in the past few years. Among them, one is already known as mentioned above two are described as new species and one is recorded for the first time in China. A systematic key to different species and generic characteristics has been given in the Chinese content. The two new species are described below. All specimens, including the types of new species, are kept in the Institute of Zoology, Academia Sinica.

***Eboda dissimilis* sp. nov.**

Wing length 6.5 mm; width 2.5 mm. Fore wing elongate-ovate with costa very strongly curved outwards at base, termen very short and rounded. Costa with a dark brown and yellow colored stripe, termen dark brown; a dark brown oblique stripe from 2/3 of costa to 1/3 of dorsum which divided fore wing into two portions: anterior portion large; basal portion small and mixed with numerous irregular short stripes.

Male genitalia: Tegumen well developed, terminal formed undeveloped lateral processes. Socii small, heavily hairy. Costa long and curved downward, terminally slightly enlarged; brachiola long. Sacculus broad at base, with peach-shaped termination, surrounded with many long hairs, near the end of cucullus covered with an elliptical hair plate. Aedeagus large with one long and strong cornuti.

Holotype ♂: Yunnan Province (Kunming, Wenguan), 29-III-1982.

This species is similar to *E. celligera*, but differs from the latter by the stripes on the fore wing and in the presence of a long and strong cornuti.

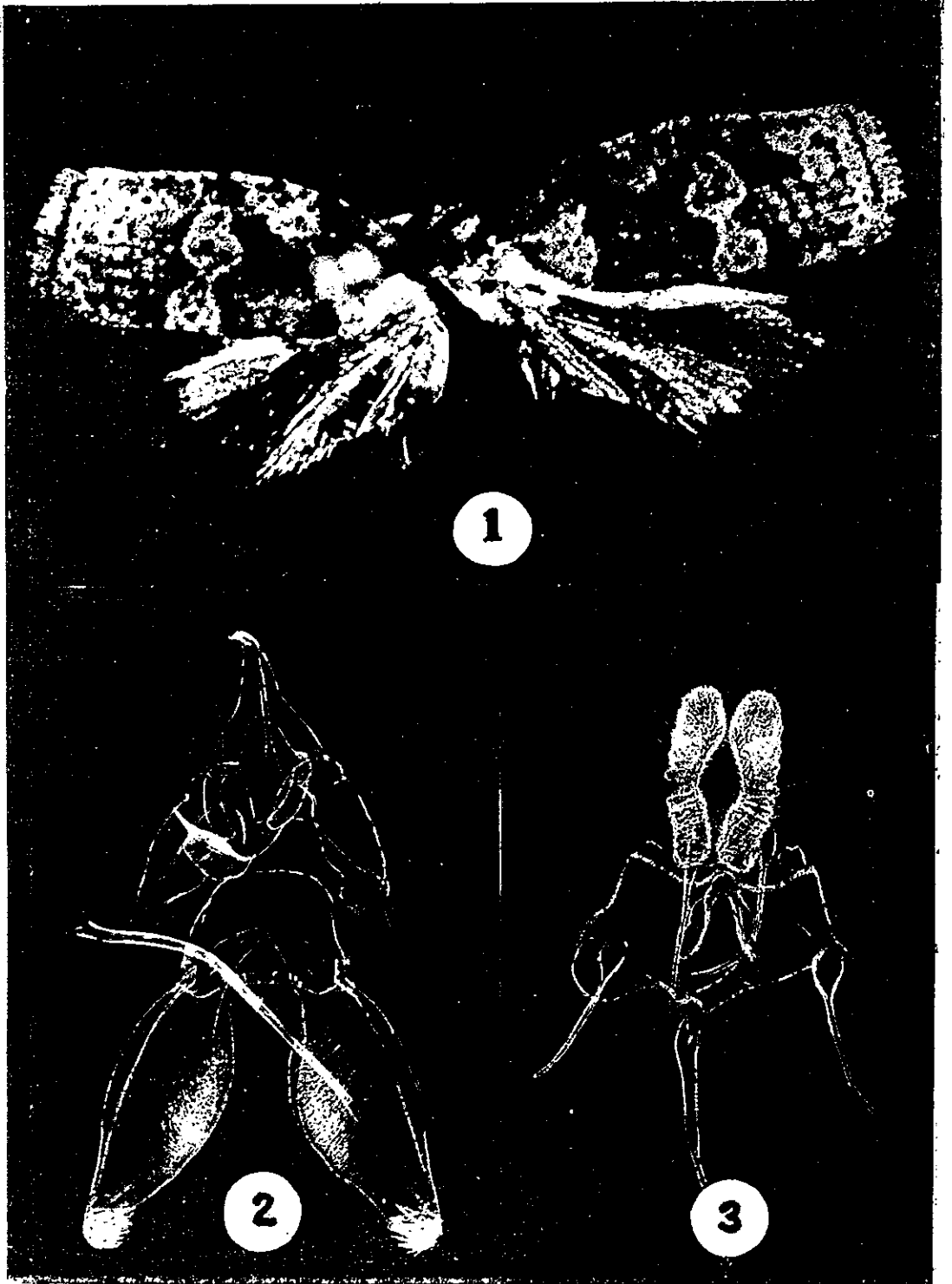
***Eboda doryphora* sp. nov.**

Wing length 6.5 mm; width 2.7 mm. Fore wing elongate ovate with costa strongly curved towards base. Fore wing pale-brown, costa with dark brown stripes and a series of white paired hooks. Some of the irregular dark brown stripes are scattered at the upper and lower parts of discal cell. Other stripes are indistinguished. Hind wing dark brown.

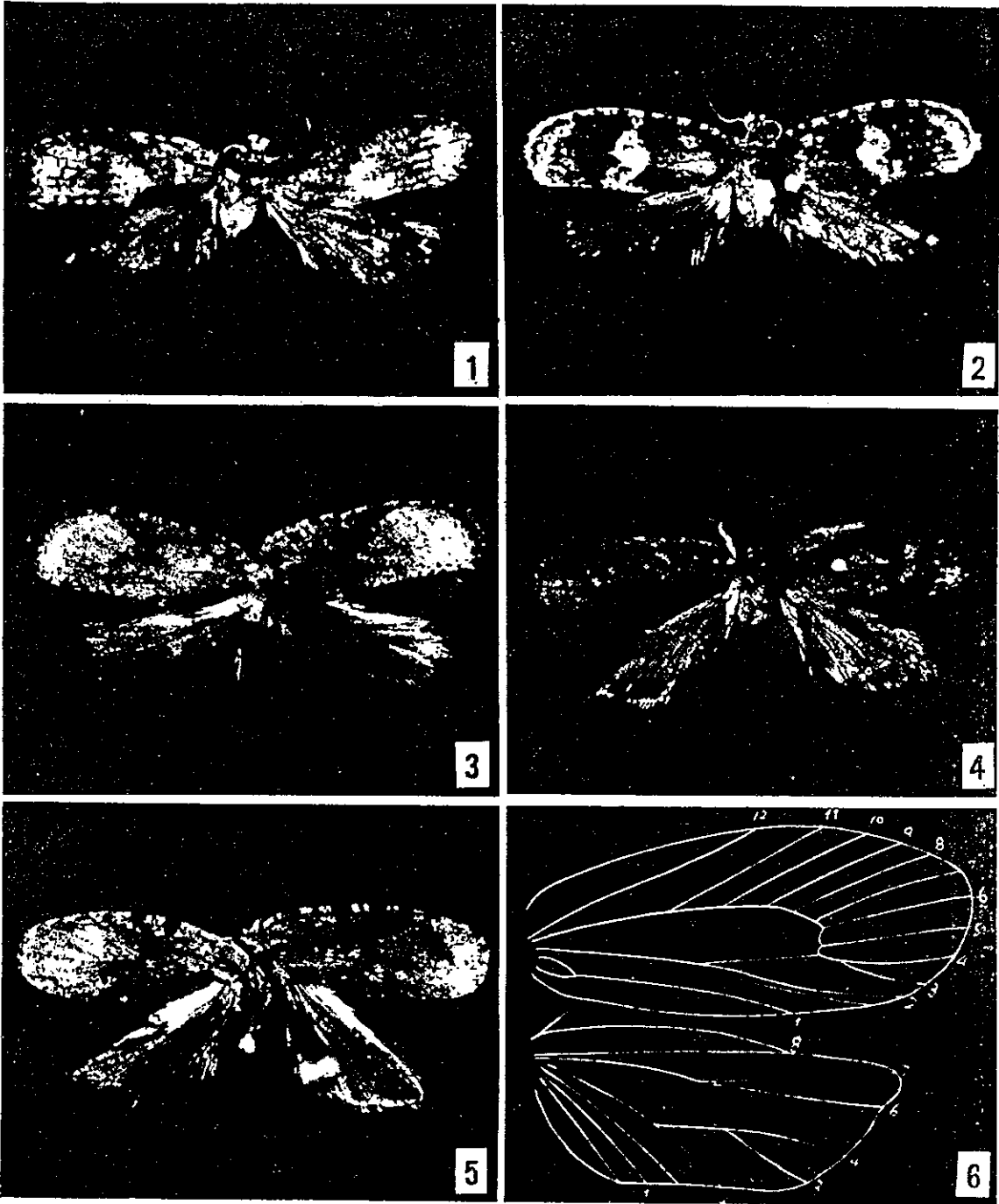
Male genitalia: Tegumen well developed. Uncus long, strongly sclerotized with enlarged termination. Lateral processes developed, slightly curved, situated at the lateral side of uncus. Costa short, thick and curved; brachiola slender. Sacculus highly sclerotized, basal portion broad, middle portion slender, terminal portion enlarged into a curved plate, with serrates on edge. Two horn-shaped cornuti are in different sizes.

Holotype ♂: Guangdong Province (Hainan Island), 13-III-1984. Bei Jiu-wei.

This species with special structures on uncus and sacculus of male genitalia is quite different from other related species.



中国圆眼卷蛾 *Ebodina Sinica* sp. nov.
1. 成虫； 2. 雄性外生殖器； 3. 雌性外生殖器。



1. 印圆角卷蛾 *Eboda assamica* Razowski 成虫; 2. 圆角卷蛾 *Eboda celligera* Meyrick 成虫;
 3. 针圆角卷蛾 *Eboda dissimilis* sp. nov. 成虫; 4. 圆角卷蛾 *Eboda celligera* Meyrick 成虫;
 5. 矛圆角卷蛾 *Eboda doryphora* sp. nov. 成虫; 6. 矛圆角卷蛾 *Eboda doryphora* sp. nov. 翅脉。