

## 中国环翅卷蛾属研究(鳞翅目:卷蛾科)

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环翅卷蛾属 (*Paratorna*) 系 Meyrick (1907) 根据模式标本 *Paratorna dorcas* 所建立。它的主要特征是: 前翅顶角圆,  $R_1$  和  $R_2$  脉分离, 前、后翅  $M_3$  和  $Cu_1$  脉共柄。到目前为止, 世界上总共记载有 4 种, 分别分布在印度、印度尼西亚爪哇和苏联西伯利亚东南部。

作者最近发现, 除该属模式种外, 其余 3 种在我国都有分布, 而且 3 种中有 2 种为我国新记录。另外, 还在四川发现 2 个新种。全部标本保存在中国科学院动物研究所昆虫标本馆。

### 种检索表

1. 雄性外生殖器抱器腹末端有 2—3 个刺丛 .....  
   雄性外生殖器抱器腹末端有 1 个刺丛 .....
  2. 抱器腹末端有 3 个刺丛 (图 1, 2) (分布: 江西兴国, 吉林长白山; 西伯利亚东南部) .....  
   ..... 银点环翅卷蛾 *P. seriepuncta* Filipiev, 1962 (图版 I: 5)  
   抱器腹末端有 2 个刺丛 (图 3, 4) (分布: 四川青城山; 印度) .....  
   ..... 褐边环翅卷蛾 *P. fenestralis* Razowski, 1964 (新记录) (图版 I: 1, 2)
  3. 刺丛呈长线条状 (图 6) (分布: 四川卧龙) .....  
   ..... 黄褐环翅卷蛾 *P. pterofulva* (新种) (图版 I: 6)  
   刺丛呈长方形 (图 5) (分布: 江西庐山; 印度) .....  
   ..... 银带环翅卷蛾 *P. cuprescens* Falkovitsh, 1965 (新记录) (图版 I: 3)  
   刺丛呈圆球状 (图 7) (分布: 四川青城山) .....  
   ..... 灰色环翅卷蛾 *P. pteropolia* (新种) (图版 I: 4)

### 新种记述

灰色环翅卷蛾 *Paratorna pteropolia* 新种 (图版 I: 4)

翅展 13.0—14.6mm。下唇须长度为复眼直径的 1.7 倍, 向前伸, 后又向上曲; 第 2 节长, 灰白色, 后半部明显膨大; 第 3 节短, 褐色。复眼很大, 黑色, 具有黄褐色花纹。头部的

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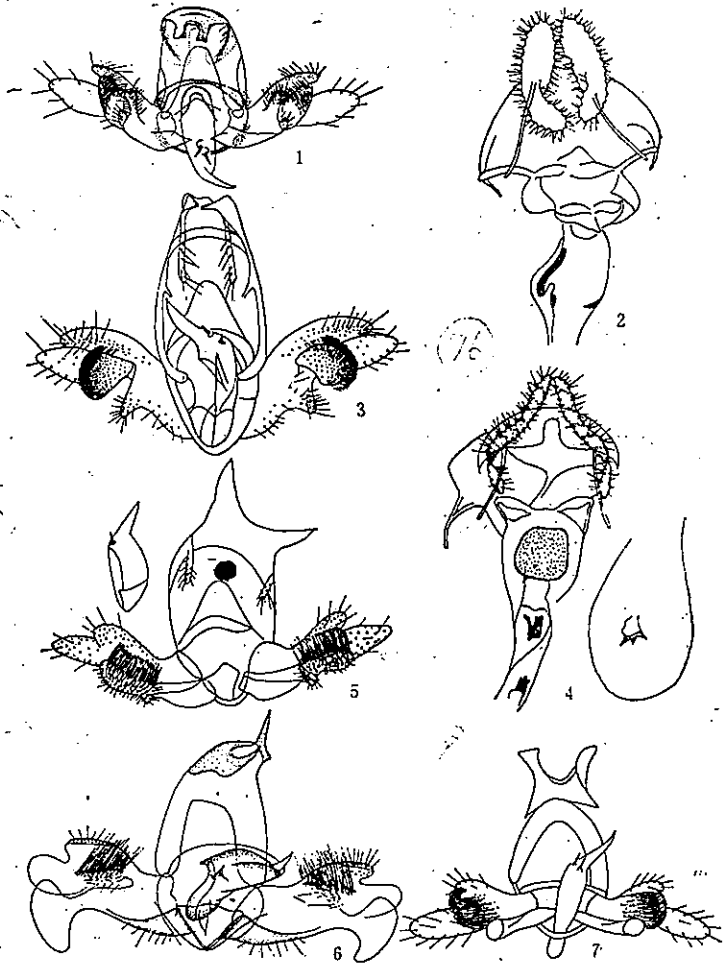


图 1—7 5种环翅卷蛾的♂外生殖器

1, 2. 银点环翅卷蛾 *Paratorna seriepuncta* Filipiev 3, 4. 褐边环翅卷蛾 *Paratorna fenestralis* Razowski 5. 银带环翅卷蛾 *Paratorna cuprescens* Fälvkovitsh 6. 黄褐环翅卷蛾 *Paratorna pterofulva* sp. nov. 7. 灰色环翅卷蛾 *Paratorna pteropolia* sp. nov.

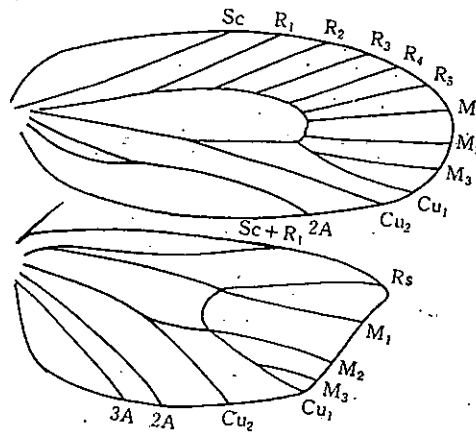


图 8 褐边环翅卷蛾脉序图

颜面灰白色, 头顶具有棕褐色鳞片。胸部黑褐色。前翅长卵圆形, 灰白色; 沿前缘到顶角, 从顶角沿外缘以及后缘都呈褐色或黑褐色; 在前缘中间有 1 块三角形褐色斑, 中室端部也有 1 块褐色斑, 但不十分明显。前翅  $R_1$  脉出自中室中点附近,  $R_2$  脉界于  $R_3$ ,  $R_4$  脉之间,  $R_5$  脉止于前缘,  $M_3$  与  $Cu_1$  脉有短共柄,  $Cu_2$  脉出自中室下缘中点。后翅灰白色, 前缘及顶角褐色, 顶角略凸出,  $R_1$  脉止于顶角,  $M_3$  与  $Cu_1$  脉有长共柄。

雄性外生殖器(图 7): 背兜宽, 末端具有 1 对很长的突起, 突起末端扩大平截; 尾突退化; 抱器背端部圆, 稍几丁质化; 抱器腹呈长管状, 腹面末端扩大像个喇叭口, 背面末端有 1 圆球状刺丛; 抱器端延长呈舌状, 膜质; 阴茎长, 先端 1/3 细而尖, 阴茎针 2 枚。

本种与褐边环翅卷蛾 *P. fenestralis* 相近似, 但主要区别是: 褐边环翅卷蛾的前翅前缘、外缘呈黑褐色; 雄性外生殖器的尾突明显, 抱器背比较长, 抱器腹的腹突比较尖, 末端不呈喇叭口状。

正模♂: 四川青城山 (1000m), 1979 年 5 月 29 日, 刘友樵采。

副模 1♂: 四川青城山 (1000m), 1979 年 5 月 22 日, 刘友樵采。

### 黄褐环翅卷蛾 *Paratorna pterofulva* 新种 (图版 I: 6)

翅展 17mm。下唇须长度为复眼直径的 2 倍, 向前伸; 第 2 节长, 黄色; 第 3 节长度约为第 2 节的 1/4, 黄褐色。触角黄褐色。单眼突出。复眼很大, 黑褐色, 具有黄色条纹。头顶具有黄色长鳞毛。胸部黑褐色。前翅长卵圆形, 黄褐色, 中室端部有较明显的褐斑, 斑的下面亦呈褐色与褐斑相连。前缘基部凸出, 中部凹下, 3/4 处又凸出; 外缘弧形, 顶角与臀角不易划分。前翅  $R_1$  脉出自中室中点,  $R_2$  脉止于外缘,  $M_3$  与  $Cu_1$  脉有短共柄,  $Cu_2$  脉出自中室下缘中点。后翅灰白色, 顶角色暗;  $R_1$  脉止于顶角,  $M_3$  与  $Cu_1$  脉有短共柄,  $Cu_2$  脉出自中室下缘 2/3 以远。

雄性外生殖器(图 6): 背兜宽, 末端具有 1 对很长的角状突起; 尾突退化; 抱器背端部圆, 稍几丁质化; 抱器腹基部宽, 腹面末端膨大呈锤状, 背面末端有 1 长线条状刺丛; 抱器端延长呈舌状, 膜质; 阴茎较粗, 端部尖, 阴茎针 2 枚。

本种与本属其他种类的明显区别表现在前翅前缘有凹陷部分; 雄性外生殖器抱器腹面末端延长呈锤状, 几乎与抱器端等长, 背面末端刺丛呈长线条状; 阴茎短粗。

正模♂: 四川卧龙 (1900 m), 1980 年 8 月 24 日, 陈素芬采。

### 参 考 文 献

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# A STUDY ON THE CHINESE *PARATORNA* MEYRICK (LEPIDOPTERA: TORTRICIDAE)

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The genus *Paratorna* of the Subfamily Tortricinae, Tribe Tortricini, is established by Meyrick in 1907, according to type species *Paratorna dorcas*. Its main characters are: forewing with apex rounded; veins  $R_4$  and  $R_5$  separate;  $M_3$  and  $Cu_1$  veins stalked on both wings. *Paratorna* is a small group with four species distributed in India, Java and South-East of Siberia.

This paper records five species of Chinese *Paratorna* collected by the authors. Among them, one is already known, two are described as new species and two are recorded for the first time in China. A species key has been given in the Chinese text. Two new species are described below. All specimens, including the types of new species, are kept in the Institute of Zoology, Academia Sinica.

## *Paratorna pteropolia* sp. nov.

Labial palpus about 1.7 as long as diameter of the eye, curved upwards; median joint long, greyish white, strongly broadening in posterior portion; apical joint short, brown. Antenna surrounded with greyish-white cilia; eyes large, black, with yellowish-brown striation. Face greyish-white, vertex with brown scales. Thorax brownish black. Forewing elongate-ovate, greyish-white, from costa to apex, termen and dorsum brown. One brown spot at the middle of costa and another brown spot at the end of discal cell. Forewing  $R_1$  from middle of median cell,  $R_3$  equidistant to  $R_2$  and  $R_4$ ,  $R_5$  reaches the costa;  $m_3$  stalked with  $Cu_1$ ;  $Cu_2$  from middle of median cell. Hindwing greyish-white, costa and apex brown, with apex slightly protruded,  $R_5$  reaches the apex,  $M_3$  long stalked with  $Cu_1$ .

Male genitalia: Tegumen broad, rounded apically, provided with two lateral subsquare projections before top; socii reduced; valva elongate with costa rounded terminally; branchiolaria very large, rounded apically; sacculus well developed, provided with bell-like ventral projection and globular spined dorsal projection; aedeagus long, pointed apically; two rather short cornuti present.

This species is closely allied to *P. fenestralis* in male genitalia, but differs from the latter in detail structures of socii and sacculus.

Holotype ♂: Sichuan, Province, Qingcheng Mt. (1000 m), 29. V. 1979. Liu You-qiao.

Paratype 1♂: Sichuan Province, Qingcheng Mt. (1000 m), 22. V. 1979. Liu You-qiao.

## *Paratorna pterofulva* sp. nov.

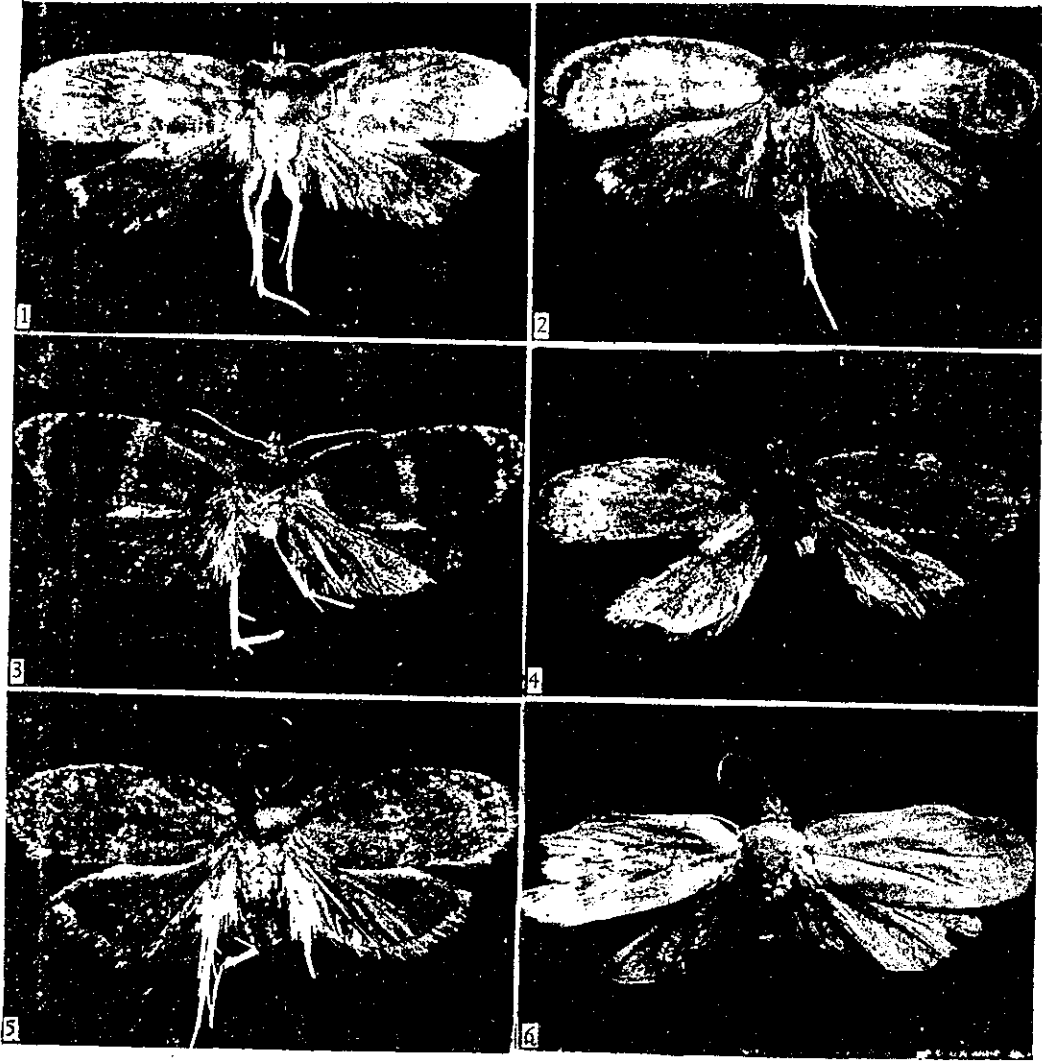
Labial palpus about 2 as long as diameter of the eye; median joint long, yellow; apical joint short, yellowish brown. Antenna yellowish brown; ocellus protruded; eyes large, brownish black. Forewing elongate-ovate, yellowish brown, conspicuous brown spot at the end of discal cell; costa curved at base, strongly concave beyond middle to about 3/4; termen curved; apex and tornus indistinct. Hindwing greyish white, apex dark. Forewing  $R_1$  from the middle

of median cell,  $r_s$  reaches the costa,  $M_3$  short stalked with  $Cu_1$ ,  $Cu_2$  from the middle of median cell. Hindwing  $R_s$  reaches the apex,  $M_3$  short stalked with  $Cu_1$ ,  $Cu_2$  from the 2/3 of median cell.

Male genitalia: Tegumen broad, provided with a pair of long horn-like projections before top; socii reduced; valva elongate with costa rounded terminally; branchiola broad, rounded apically; sacculus well developed, provided with hummer-like ventral projection and thread-like spined dorsal projection; aedeagus thick, pointed apically, two rather short cornuti present.

This species with special structures on forewing with concaved costa, on male genitalia with sacculus provided with hummer-like ventral projection and thread-like spined dorsal projection is quite different from other related species.

Holotype ♂: Sichuan Province, Wolong (1900 m), 24. VIII. 1980. Chen Sufen.



1. 褐边环翅卷蛾 *Paratorna fenestralis* Razowski
2. 褐边环翅卷蛾 *P. fenestralis* Razowski
3. 银带环翅卷蛾 *P. cuprescens* Falkovitsh
4. 灰色环翅卷蛾 *P. pteropolia* sp. nov.
5. 银点环翅卷蛾 *P. sciripuncta* Filipiev
6. 黄褐环翅卷蛾 *P. pterofulva* sp. nov.