

中国斑卷蛾属研究及新种记述

(鳞翅目:卷蛾科)

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斑卷蛾属 *Terthreutis* 系 Meyrick (1918) 根据模式种 *sphaerocosma* 建立的。该属(卷蛾亚科)到目前为止,世界上共记载有 3 种、分布在中国及印度。多年来,从我国广东、云南、四川及西藏等省区收集到的小蛾类标本中发现这属 2 个老种及 3 个新种。由于本属种类不断增加,属征需要进一步完善补充记述。为完整起见,对老种也给与统一补充记述。

所有标本及新种模式标本都保存在中国科学院动物研究所昆虫标本馆。

一、斑卷蛾属 *Terthreutis* Meyrick, 1918

Terthreutis Meyrick, 1918. Exotic Microlepidoptera 2: 170.

Amniodes Meyrick, 1938. in Caradja and Meyrick, Deuts. Ent. Zeit, Ires 52: 13.

属征: ♀ 触角丝状, ♂ 具长纤毛。唇须上举, 细小, 无长鳞毛; 第 3 节短小。胸部背面具竖鳞, 前翅亚长方形, 无前缘褶; 赭白色或黄褐色, 具有比较规律的斑纹。有 12 条脉, 2 脉出自中室 2/3 处, 3 脉出自中室的下角, 基部 1/2 弯曲, 7 脉和 8 脉共柄, 7 脉到顶角。后翅没有栉毛, 8 条脉, 3 和 4 脉同出于一点或具短柄, 4 与 5 脉近平行, 6 和 7 脉具长柄, 7 脉到顶角。

雄性外生殖器: 爪形突强烈骨化, 细长而弯曲, 背兜宽大; 颚形突发达; 尾突小或中等, 抱器瓣狭长, 具有抱器背和抱器腹, 抱器端圆; 抱器背基突中间分离, 阳茎细小, 无阳茎针。

雌性外生殖器: 产卵瓣上宽下窄; 阴片发达, 囊导管膜质, 囊突呈结巴状, 骨化程度差。

二、种检索表

雄性外生殖器

1. 抱器腹长约为抱器瓣长的 1/2 2
- 抱器腹长约为抱器瓣长的 2/3 3
2. 抱器瓣弯曲, 爪形突长而脆弱 (图 5) 行斑卷蛾 *Terthreutis series* sp. nov.
- 抱器瓣直, 爪形突短而坚硬 (图 2) 圆斑卷蛾 *Terthreutis orbicularis* 新种

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此文得到刘友樵先生的帮助, 特此致谢。

3. 爪形突特长, 钩形(图 1).....双斑卷蛾 *Terthreutis bipunctata* 新种
 爪形突较短, 弯曲.....4
 4. 抱器瓣较宽, 爪形突尖(图 3).....黄斑卷蛾 *Terthreutis xanthocycla* (Meyrick)
 抱器瓣较狭, 爪形突钝(图 4).....球斑卷蛾 *Terthreutis sphaerocosma* Meyrick

三、种的记述

1. 球瓣卷蛾 *Terthreutis sphaerocosma* Meyrick

Terthreutis Sphaerocosma Meyrick, 1918. Exotic
Microlepidoptera 2: 170.

雄雌翅展 16—23mm。头部、唇须及胸部白色。前翅顶角圆, 外缘倾斜而圆; 赭白色, 基斑近前缘部分铅紫色, 近后缘部分深褐色。中域有赭灰色短线, 中室端部有一近圆形深褐斑, 斑内桔黄色; 顶角及其附近铅紫色; 臀角内侧有一不规则的铅紫色斑。后翅淡灰色, 基部较淡。

雄性外生殖器(图 4): 爪形突镰刀形, 背兜上端具有 2 个突起, 抱器瓣狭窄, 抱器背弯曲, 抱器腹长为抱器瓣长的 3/4。颚形突基部两侧具角突, 抱器背基突长, 阳茎细。

分布: 云南温泉、梁河; 印度。

2. 黄斑卷蛾 *Terthreutis xanthocycla* (Meyrick) (图版 I: 1)

Amniodes xanthocycla Meyrick, 1938 in Caradja and Meyrick, Deuts. Ent. Zeit. Iris 52: 13.

雌雄翅展 18—20mm。头部赭白色; 复眼很大; 唇须褐色。前翅淡黄褐色, 各种斑纹均呈深褐色, 前缘基部 1/3 也为深褐色。该种具有基斑、中带和端纹, 中带从前缘 1/3 开始斜向臀角与臀角处的斑纹相连。端纹在前缘附近很宽, 弯曲斜向臀角时变细而尖。在中室端区有一长圆形斑、斑内淡黄色。基斑和长圆形斑之间有 3、4 条不十分明显的短横线。后翅黄白色。

雄性外生殖器(图 3): 爪形突弯曲, 末端扁尖; 背兜宽大, 上端具有 4 个突起; 抱器瓣宽, 抱器背弯曲而骨化较强, 抱器腹长为抱器瓣长的 2/3; 颚形突基部宽大弯曲, 末端短小、抱器背基突宽。阳茎比较粗。

雌性外生殖器(图 8): 产卵瓣纺锤形, 前阴片中间分开、三角形反折, 囊突心脏形。

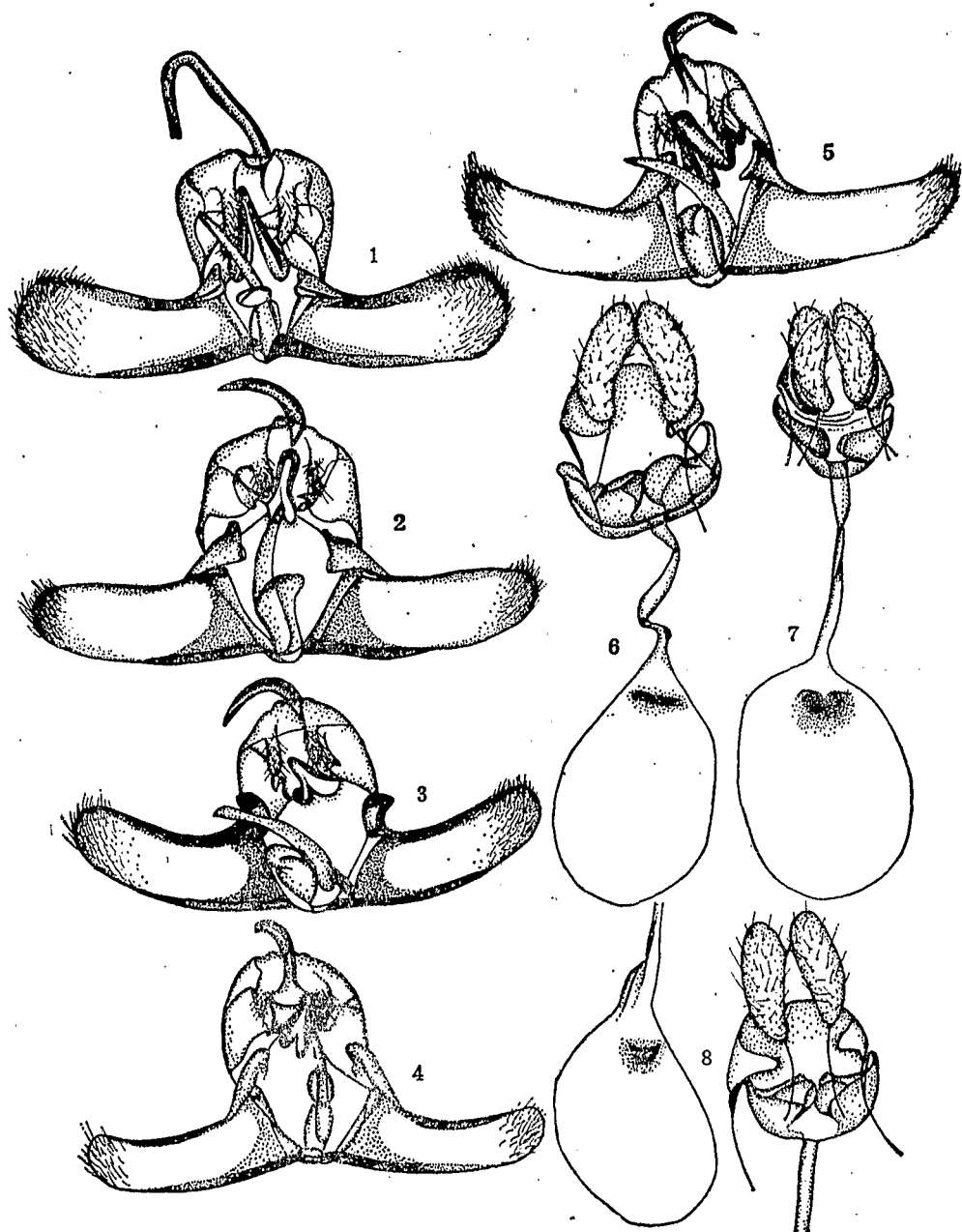
分布: 西藏波密, 易贡, 云南丽江*。

3. 圆斑卷蛾 *Terthreutis orbicularis* 新种 (图版 I: 3)

雄雌翅展 19—23mm。触角褐色, 头部赭白色。冠毛灰白或铅灰色。唇须淡褐色。胸部背面铅灰色; 翅基片白色。前翅顶角圆。基斑深栗褐色, 镶有白色边, 后缘处淡黄色; 近似梯形、其外缘中部缺刻。在基斑与中带之间赭白色, 散布有短横线; 中带不十分明显, 从前缘基部 1/5 开始倾向臀角, 铅灰色。中室端部有一近圆形的锈黄色斑, 周围镶有白色边。在臀角内侧有一块大斑由深栗及铅灰色组成; 中室端斑与外缘之间呈锈黄色。前缘及其附近淡黄白色; 缘毛铅褐色。后翅浅灰色, 顶角附近黄白色。

雄性外生殖器(图 2)。爪形突强烈骨化, 弧形弯曲, 末端尖; 背兜宽大, 上端具有 2 个突起; 抱器瓣比较直, 抱器背骨化弱, 抱器腹长约为抱器瓣长的 1/2; 颚形突基部两侧有尖

* 文献记载。

图 1—8 斑卷蛾属 *Terthreutis* Meyrick

1. 双斑卷蛾 *Terthreutis bipunctata* sp. nov.; 2. 圆斑卷蛾 *Terthreutis orbicularis* sp. nov.;
 3. 黄斑卷蛾 *Terthreutis xanthocycla* (Meyrick); 4. 球斑卷蛾 *Terthreutis sphaerocosma* Meyrick;
 5. 行斑卷蛾 *Terthreutis series* sp. nov.; 6. 圆斑卷蛾 *Terthreutis orbicularis* sp. nov.;
 7. 双斑卷蛾 *Terthreutis bipunctata* sp. nov.; 8. 黄斑卷蛾 *Terthreutis xanthocycla* (Meyrick)。

刺突, 臂较长而宽; 抱器背基突三角形, 阳茎较短而略弯。

雌性外生殖器(图 6): 产卵瓣上窄下宽; 阴片有折边, 前阴片中间分开。囊导管膜

质。囊突长条状。

正模♂：四川卧龙，1980. VI. 19 白九维采。配模♀：四川卧龙，1980 VI. 30 白九维采。副模♂：四川卧龙，1980. VIII. 25, 刘友樵采。

本种与双斑卷蛾 *Terthreutis bipunctata* 外形近似，但主要区别在雄雌外生殖器。本种爪形突短而尖，抱器瓣端部不扩大，囊突长条状；后者爪形突长，钩状，抱器瓣端部扩大，囊突心脏形。

4. 双斑卷蛾 *Terthreutis bipunctata* 新种 (图版 I:4)

雄雌翅展 19—22mm。触角黄褐色，雌丝状，雄具长纤毛。头部白色，冠毛淡灰色。唇须黄褐色，其长度不超过复眼的直径。胸部背面及翅基片赭白色混杂铅灰色鳞片、具有少数竖鳞。前翅赭白色，沿前缘淡褐色；基斑外缘突出，其下半部深棕褐色，上半部铅灰色，中室端部有一近圆形的黄褐色斑，斑的内侧与臀角内侧有一横斑纹、铅灰色；中室端斑与外缘之间淡黄褐色，基斑与中室端斑之间有不十分明显的浅灰色短横浅，臀角有一块不规则的铅灰色斑。后翅灰白色，沿翅缘色深。

雄性外生殖器(图 1)：爪形突特长，钩形，末端齐；背兜宽大于长，上端具有 4 个不十分明显的突起；抱器瓣端部膨大，圆；抱器背骨化强；抱器腹长约为抱器瓣长的 4/5。颚形突发达、臂长；抱器背基突三角形，阳茎长。

雌性外生殖器(图 7)：产卵瓣上宽下窄，前阴片中间分开，加厚，囊突心脏形，大，骨化强。

正模♂：海南岛天池，1984. IV. 23, 白九维采。配模♀：海南岛天池，1980. III. 21, 方承荣采。副模(13♂♂)：海南岛天池，1980. III. 18, III. 21, III. 24, IV. 11, IV. 13, 方承荣采；1982. X. 21, 陈佩珍采。1984. III. 22, 白九维采。

本种外形与球斑卷蛾 *Terthreutis sphaerocosma* 很相似。但雄性外生殖器相差悬殊；本种爪形突特长，钩形，背兜宽大于长；后者爪形突短，背兜长大于宽。

5. 行斑卷蛾 *Terthreutis seris* 新种 (图版 I:2)

雄翅展 19mm。雄触角褐色，具长纤毛。头部赭白色。唇须淡黄褐色。胸部背面赭白色混杂铅黑色鳞片。翅基片白色。前翅赭白色，前缘较暗；基斑锈褐色，近前缘部分不明显；中带从前缘基部 1/4 开始终止臀角，由铅灰色和锈褐色斑纹相间组成。基斑与中带之间有不十分明显的短横线。中室端部有一接近圆形的斑，黄褐色，此斑上方有 2 块大小不同的锈褐斑。外缘倾斜，在外缘与中室之间呈淡黄色。后翅灰白色。

雄性外生殖器(图 5)：爪形突骨化差，脆弱，弯曲；背兜上端有 2 个明显的突起。抱器瓣端部变狭窄；抱器背不十分明显，抱器腹仅为抱器瓣长的 1/2；颚形突臂宽大；抱器背基突宽。阳茎略弯曲。

正模♂：四川省渡口，1980. VI. 14, 张宝林采。

本种与圆斑卷蛾 *Terthreutis orbicularis* 比较相近似。但外形与雄性外生殖器有区别。本种中带由斑纹组成，爪形突长，骨化差；后者中带不十分明显，爪形突短，骨化强。

参 考 文 献

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A STUDY ON CHINESE *TERTHREUTIS* MEYRICK (LEPID OPTERA: TORTRICIDAE), WITH DESCRIPTION OF NEW SPECIES

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The genus *Terthreutis* Meyrick, 1918 (Tortricidae) with curious abnormal appearance, perhaps allied to *Coephasia*. Until now 3 known species recorded in the world, only distributed in China and India.

This paper deal with 5 species of Chinese *Terthreutis* collected from Guangdong, Yunnan, Sichuan Province and Xizang Auto-nomous Region. Among them, three species are considered as new to science. A key to the 5 species in China and description of 3 new species are given.

All of specimens including the types of new species are kept in the Institute of Zoology, Academia Sinica.

Key to species

Based on male genitalia

1. Sacculus as long as $1/2$ of the valva2
 Sacculus as long as $2/3$ of the valva3
2. Valva crooked, uncus long and weak (fig. 5)
 *Terthreutis series* sp. nov.
 Valva straight, uncus short and strong (fig. 2).....
 *Terthreutis orbicularis* sp. nov.
3. Uncus unciform, long (fig. 1)..... *Terthreutis bipunctata* sp. nov.
 Uncus crooked, short..... 4
4. Valva wide, uncus sharp at apex (fig. 3)
 *Terthreutis xanthocycla* (Meyrick)
 Valva narrow, uncus blunt at apex (fig. 4)
 *Terthreutis sphaerocosma* Meyrick

Description of the new species

1. *Terthreutis orbicularis* sp. nov. (Pl. I:3)

Wing expanse 19—23mm. Head ochreous-whitish, crown whitish-grey or grey-

ish-lead. Labial palpi brown. Thorax dorsally greyish-lead; fore wing oblongus, rounded at apex, Tegulae whitish, basal patch with badius, light yellow at below; nearly scalariform, incision in the middle; with strigulated between basal patch and median fascia, ochreous-whitish, median fascia grey-lead, from $1/5$ at base obliquely toward tornus. Distal area of median cell with a nearly rounded, ferruginous, ringed with white colour, the inwards of tornus with a big speck, dark castaneus mixed grey-lead, ferruginous between distal speck of median cell and termen, light yellowish-white near costa; fringe brownish-lead. Hind wing with light grey, yellowish-white apically.

Male genitalia (fig. 2): Uncus well sclerotized arcuate curved, pointed terminally, tegumen wide, 2 processes at apex, valva relatively straight, costa weak sclerotized, sacculus about as long as $1/2$ length of valva, both sides of basal gnathos with pointed spine, arms long and wide, transtilla triangle. Aedeagus shorter and curved.

Female genitalia (fig. 6): Papil analis narrow in upper side, and wide at below, with plated edge, lamella ante vaginalis divided in the middle. Signum long strigate, weak sclerotized.

Holotype ♂, Sichuan Province (Wolong, 1900m, June 19, 1980. Bai Jiu-wei).

Allotype ♀, Sichuan Province (Wolong, 1900m. June 30, 1980. Bai Jiu-wei).

Paratype ♂, Sichuan Province (Wolong, 1900m, Aug. 25, 1980. Liu You-qiao).

This species resembles *Terthreutis bipunctata* in appearance; but it differs from latter in male genitalia. Uncus short and pointed, long strigate signum on corpus bursae in *Terthreutis orbicularis*; while in the latter, uncus long, unciform, signum cordiform in shape.

2. *Terthreutis bipunctata* sp. nov. (Pl. 1:4)

Wing expanse: 19—22mm. Head whitish, crown light greyish. Labial palpi slender, ascending, whitish-yellow, less than diameter of eye. Thorax and tegulae ochreous-whitish somewhat mixed with greyish-lead, a little crest scales on thorax. Fore wing ochreous-whitish, light brownish along costa, basal patch protruding in the middle of the termen. Grey-lead at upper side and brunneus at below, distal area of median cell with nearly rounded, brown-yellowish specks. Brown-yellowish between distal speck of median cell and termen. Between basal patch and distal speck of median cell with inconspicuous pale greyish strigata, tornus with an irregular speck, greyish-lead. Hind wing white-greyish.

Male genitalia (fig. 1): Uncus special long, unciform, truncatus apically, tegumen broad wider than length, 4 inconspicuous processes apically, valva expanded, rounded at termination, costa strong sclerotized, sacculus as long as $2/3$ of valva, gnathos well developed arm long, transtilla triangle; aedeagus long.

Female genitalia (fig. 7): Papillae anales with broad at upper portion and narrow at lower portion, lamella antevaginalis divided in the middle, thickened, signum large cordiform in shape, weak sclerotized.

Holotype ♂, Hainan Province (Tianchi, Mar. 23, 1984. Bai Jiu-wei).

Allotype ♀, Hainan Province (Tianchi, Mar. 21, 1980. Fang Cheng-lai).

Paratypes 13♂♂, Hainan Province (Tianchi, Mar. 18, April 11, 13, 1980. Fang Cheng-lai), (Dec. 21, 1982. Chen Pei-zhen), (Mar. 22, 1984. Bai Jiu-wei).

This species resembles *Terthreutis sphaerocosma* in the appearance, but differs in the male genitalia, uncus special long, unciform, tegumen broad wider than length; but in latter, uncus short, tergumen broader, shorter than length.

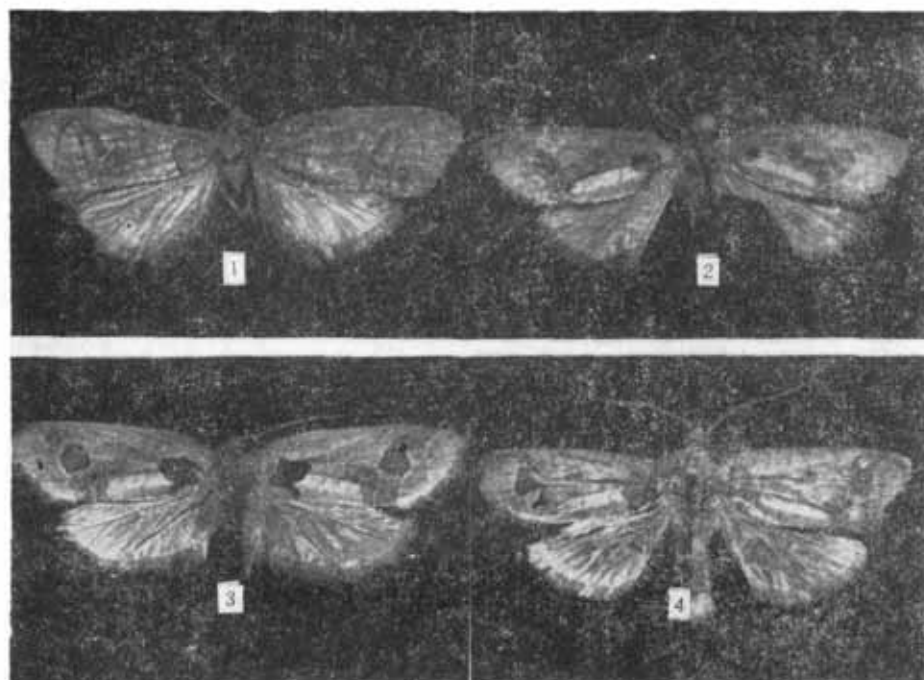
3. *Terthreutis series* sp. nov. (Pl. 1:2)

Wing expanse (♂): 19mm. Head ochreous-whitish. Labial palpi light yellowish brown. Thorax ochreous-whitish, mixed with blackish-leaden scales, with crest scales, tegulae whitish. Fore wing ochreous-whitish, costa darker, basal patch ferruginous, inconspicuous in anterior edge, median fascia from basal 1/4 of the costa to tornus, greyish leaden or ferruginous colour, with slightly conspicuous strigula between basal patch and median fascia, with nearly rounded spot at distal area of median cell, yellowish-brown, above nearly rounded spot with 2 different size ferruginous spots, termen oblique, light yellow between distal spot of median cell and termen. Hind wing greyish-white.

Male genitalia (fig. 5): uncus weak sclerotized, flexible, curved, tegumen with 2 distinct processes at apex. Valva narrow at apex, costa inconspicuous, sacculus as long as 1/2 of valva, arm of gnathos expanded, transtilla broad at apex, aedoeagus slightly curved.

Holotype ♂, Sichuan Province (Dukou, June 14, 1980. Zhang Bao-lin).

This species related with *Terthreutis orbicularis*, but they differ in the appearance and genitalia. In *Terthreutis series* median fascia with a series of spots, uncus long, weak sclerotized; but in latter median fascia inconspicuous, uncus short, well sclerotized.



图版 1—4 斑卷蛾属 *Terthreutis* Meyrick

1. 黄斑卷蛾 *Terthreutis xanthocycla* (Meyrick) 2. 行斑卷蛾 *Terthreutis series* sp. nov.
3. 圆斑卷蛾 *Terthreutis orbicularis* sp. nov. 4. 双斑卷蛾 *Terthreutis bipunctata* sp. nov.