

A new species of *Glyptoteles* Zeller, 1848 from China (Lepidoptera: Pyralidae, Phycitinae)

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Abstract

Glyptoteles proalatrubens Ren & Li, sp. n. is described, with photographs of adult and genitalia provided. Images of its allied species *G. leucacrinella* Zeller, 1848 are also given for comparison purposes.

KEY WORDS: Lepidoptera, Pyralidae, Phycitinae, *Glyptoteles*, new species, China.

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Resumen

Se describe *Glyptoteles proalatrubens* Ren & Li, sp. n., se proporcionan fotografías del adulto y genitalia. Se dan imágenes, para comparar, con la especie próxima *G. leucacrinella* Zeller, 1848.

PALABRAS CLAVE: Lepidoptera, Pyralidae, Phycitinae, *Glyptoteles*, nueva especie, China.

Introduction

The genus *Glyptoteles* was established by ZELLER (1848) with *G. leucacrinella* Zeller, 1848 as the type species. REN & LI (2012) synonymized *Rufalda absolutella* Roesler, 1972, the type species of the genus *Rufalda* Roesler, 1972, with *G. leucacrinella*, and consequently proposed *Rufalda* as a junior synonym of *Glyptoteles*. *Glyptoteles* currently includes the type species only, distributed in China, Japan, Korea, Russia (Far East), central Europe (except British Isles) (HANNEMANN, 1964; ROESLER, 1972; IVINSKIS, 1984; SINEV, 1986; KIRPICHNIKOV & YAMANAKA, 1999; BAE, 2008; REN & LI, 2009, 2012; SLAMKA, 2010).

Glyptoteles is characterized by the sickle-shaped male labial palpus (Figs 1a, 2a) compressed laterally, bearing dense scales that form a serrate margin; the forewing with R_{3+4} and R_5 stalked in basal half, M_2 close to M_3 at base, the hindwing with R_s and Sc stalked for basal 3/5 of R_s , M_2 and M_3 stalked in basal 2/5 (Figs 3, 4); the long triangular uncus, the slender and tapered gnathos, the narrowed transtilla fused terminally, the clubbed costa expanded distally, and the simple, paired culcita in the male genitalia (Figs 5, 6); and the ductus bursae longer than the corpus bursae, the subovate corpus bursae scobinate on the inner surface, and the ductus seminalis originating from near middle of the corpus bursae in the female genitalia (Figs 7, 8).

Glyptoteles resembles *Kaurava* Roesler & Küppers, 1981, but they can be separated by the following characters: in *Glyptoteles*, the sickle-shaped male labial palpus is laterally compressed, bearing dense scales forming a serrate margin; the uncus is triangularly elongate, the gnathos is shorter than the uncus, and the aedeagus has one cornutus in the male genitalia; the ductus bursae is longer than the corpus bursae, the ductus seminalis originates from the middle part of the corpus bursae in the female genitalia. Whereas in *Kaurava*, the male labial palpus is not laterally

compressed, with normal scales not forming a serrate margin; the uncus is triangularly rounded, the gnathos is as long as the uncus, and the cornutus of the aedeagus is absent in the male genitalia; the ductus bursae is shorter than the corpus bursae, and the ductus seminalis originates from the posterior part of the corpus bursae in the female genitalia.

We describe *Glyptoteles proalatrubens* Ren & Li, sp. nov. in this paper. The type specimens are deposited in the Insect Collection, College of Life Sciences, Nankai University, Tianjin, China.

***Glyptoteles proalatrubens* Ren & Li, sp. n.** (Figs 1, 3, 5, 7)

Type material: Holotype ♂, CHINA, Jinxiu (24° 07'N 110° 11'E), Guangxi Zhuang Autonomous Region, 510 m, 14-IV-2002, coll. Shulian Hao and Huaijun Xue, gen. slide No. RYD04648. Paratypes: Guangxi Zhuang Autonomous Region: 5 ♂♂, 2 ♀♀, same data as for holotype; 3 ♂♂, 1 ♀, Qinmucun (24° 48'N 109° 59'E), Yongfu, 160 m, 1-4-V-2008, coll. Li Zhang & Hui Zhen; 1 ♂, Shaoping Yard (22° 05'N 106° 54'E), Pingxiang, 300 m, 20-VII-2011, coll. Bingbing Hu; 1 ♂, 1 ♀, Shaoping Yard, Pingxiang, 190 m, 24, 25-VII-2011, coll. Bingbing Hu; 1 ♂, Liusanjie (24° 31'N 108° 56'E), Yizhou, 169 m, 19-VIII-2011, coll. Shulian Hao & Yinghui Sun. Hainan Province: 2 ♂♂, Mt. Wuzhi (18° 48'N 109° 30'E), 700 m, 19-V-2007, coll. Zhiwei Zhang & Weichun Li; 1 ♂, 1 ♀, Mt. Diaoluo (18° 45'N 109° 51'E), 940 m, 31-V, 2-VI-2007, coll. Zhiwei Zhang & Weichun Li; 1 ♂, 1 ♀, Mt. Jianfeng (18° 42'N 108° 49'E), 940 m, 5-VI-2007, coll. Zhiwei Zhang & Weichun Li; 1 ♂, 1 ♀, Mt. Diaoluo, Lingshui, 300 m, 11-VIII-2008, coll. Bingbing Hu & Li Zhang; 2 ♂♂, 2 ♀♀, Mt. Yingge (19° 02'N 109° 32'E), 620 m, 9-V-2010, coll. Bingbing Hu & Jing Zhang; 4 ♀♀, 13-30-IX-2010, coll. Bingbing Hu. Yunnan Province: 1 ♀, Botanical Garden, Ruili (24° 00'N 97° 50'E), 1000 m, 6-VIII-2005, coll. Yingdang Ren; 4 ♀♀, Bubang (21° 36'N 101° 35'E), Mengla, 650 m, 22-25-VIII-2005, coll. Yingdang Ren; 1 ♂, Botanical Garden (21° 55'N 101° 16'E), Xishuangbanna, 531 m, 19-VIII-2010, coll. Yinghui Sun & Lixia Li. Genitalia slide Nos. RYD04646m, LJY10182m, LJY10183m, LJY10401m, LJY10402m, LHX14074m, RYD04649f, RYD04683f, LHX14075f, LHX14076f.

Description: Adult (Figs 1, 3). Wingspan 14.0-17.5 mm. Head yellowish brown. Antenna yellowish brown on dorsal surface, cilia short on ventral surface; sinus of male flagellum gentle, with short, yellowish brown scale tufts. Labial palpus upturned, in male (Fig. 1a) compressed laterally, sickle-shaped, bearing dense scales forming a serrate margin, three segments about same length, yellowish brown except black at middle of each segment; in female (Fig. 1b) bent over vertex, yellowish brown, second and third segments about same length, slightly longer than first segment. Patagium, tegula and thorax yellowish brown. Forewing grayish brown, scales black-tipped, with numerous reddish brown scales along veins; antemedian line blackish brown, sinuate, oblique outwardly, with a large, subtriangular, creamy yellow patch on inner side of its lower half; discal spot absent; postmedian line yellowish white, sinuate, concave at M_1 and A; terminal line black; cilia grayish brown. Hindwing grayish brown, with a line of long, bristle-like scales at base of costa; cilia light gray. Legs yellowish brown, mixed with numerous black scales. Abdominal segments yellowish brown.

Male genitalia (Fig. 5): Uncus elongate, subtriangular, bluntly rounded at apex, densely setose on dorsal surface. Apical process of gnathos clubbed, about 3/5 length of uncus. Transtilla fastigiate. Valva slightly broadened from base to rounded apex, concave at middle on ventral margin, bearing fine setae in distal 2/3; costa extending to end of valva, triangularly expanded apically; sacculus clubbed, slightly narrowed from base to end, 8/11 length of costa. Vinculum U-shaped, concave at middle of anterior margin. Juxta U-shaped; lateral lobe fingerlike, about 2/3 length of apical process of gnathos, with sparse setae distally. Aedeagus cylindrical, slightly tapering from base to apex; cornutus represented by a long reversely tapered thorn; a band composed of spinules from basal 1/4 to 3/4 parallel with cornutus. Eighth sternite a narrow V-shaped band, tergite somewhat fan-shaped, protruded antero-medially. Culcita paired.

Female genitalia (Fig. 7): Anal papillae triangular, bearing dense long setae. Antrum nearly

quadrate, protruded triangularly at middle on posterior margin. Ductus bursae elongate, about 2.0 times length of corpus bursae, narrowed in posterior 2/3, broadened in anterior 1/3, scobinate at junction with corpus bursae. Corpus bursae round, scobinate in posterior half, with concentration at transition to corpus bursae, forming an obvious ovate area; signum absent. Ductus seminalis incepted at middle of corpus bursae.

Diagnosis: This new species is similar to *G. leucacrinella*. It can be distinguished from the latter by the forewing with numerous reddish brown scales along veins and having a subtriangular, creamy yellow patch on the inner side of the antemedian line; the fastigate transtilla, the apical process of gnathos about 3/5 length of the uncus, the costa reaching the end of the valva, the juxta with the lateral lobe about 2/3 length of gnathos, and the eighth sternite V shaped in the male genitalia; and the nearly square antrum in the female genitalia. In *G. leucacrinella*, the forewing lacks reddish brown scales along veins and it has a narrow, indistinct grayish white band on the inner side of the antemedian line (Fig. 2); the transtilla is arched, the apical process of the gnathos is about 1/2 length of the uncus, the costa does not reach the end of the valva, the lateral lobe of the juxta is about 1/3 length of the gnathos, and the eighth sternite is A shaped in the male genitalia (Fig. 6); and the antrum is band-shaped in the female genitalia (Fig. 8).

Distribution: China (Guangxi, Hainan, Yunnan).

Etymology: The specific name is derived from the Latin *proalatus* (forewing), and *rubens* (red) referring to the forewing bearing numerous reddish brown scales along veins.

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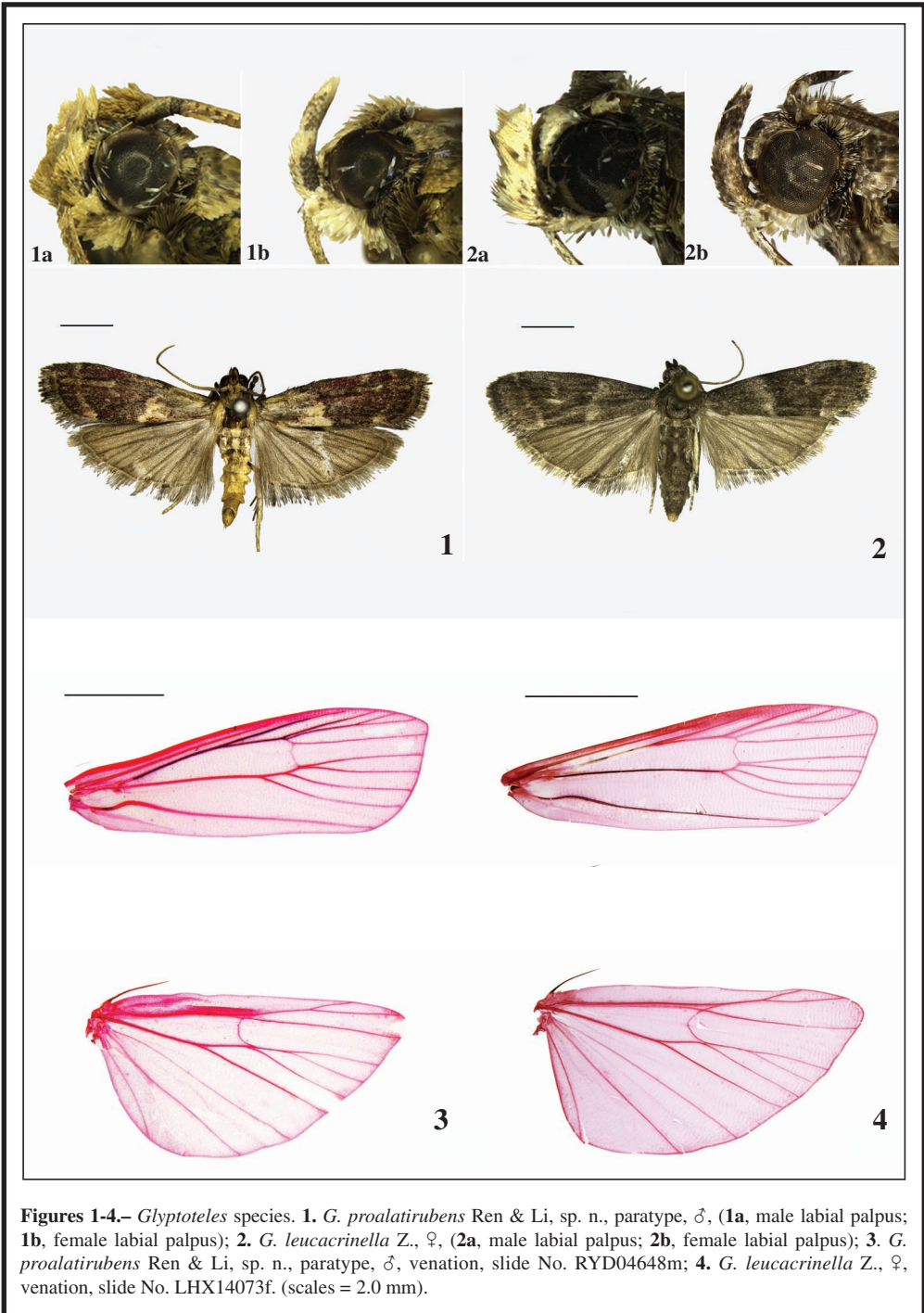
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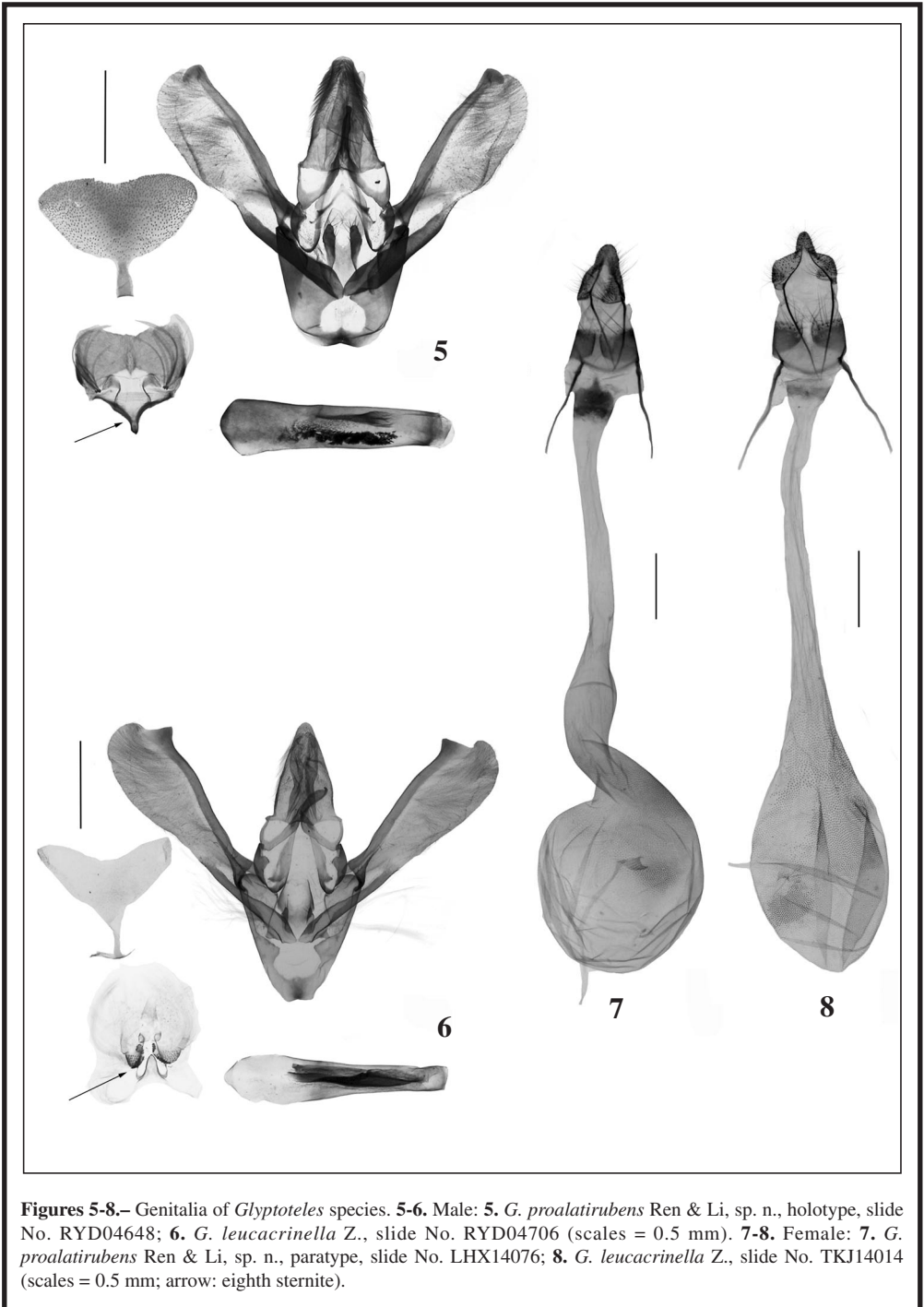
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Figures 1-4.— *Glyptoteles* species. **1.** *G. proalatrubens* Ren & Li, sp. n., paratype, ♂, (**1a**, male labial palpus; **1b**, female labial palpus); **2.** *G. leucacrinella* Z., ♀, (**2a**, male labial palpus; **2b**, female labial palpus); **3.** *G. proalatrubens* Ren & Li, sp. n., paratype, ♂, venation, slide No. RYD04648m; **4.** *G. leucacrinella* Z., ♀, venation, slide No. LHX14073f. (scales = 2.0 mm).



Figures 5-8.— Genitalia of *Glyptoteles* species. **5-6.** Male: **5.** *G. prolatirubens* Ren & Li, sp. n., holotype, slide No. RYD04648; **6.** *G. leucacrinella* Z., slide No. RYD04706 (scales = 0.5 mm). **7-8.** Female: **7.** *G. prolatirubens* Ren & Li, sp. n., paratype, slide No. LHX14076; **8.** *G. leucacrinella* Z., slide No. TKJ14014 (scales = 0.5 mm; arrow: eighth sternite).