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(Lepidoptera: Pyralidae)

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One new species and two new species records of the genus *Endotricha* Zeller, 1847 from China (Lepidoptera: Pyralidae)

Y. L. Sun & H. H. Li

Abstract

Endotricha minutiptera Li, sp. n. is described from Hainan, China. *Endotricha loricata* Moore and *E. ragonoti* Christoph are reported for the first time in China. Images of the adults and the genitalia of the three species are provided.

KEY WORDS: Lepidoptera, Pyralidae, *Endotricha*, new species, China.

Una nueva especie y dos nuevas citas del género *Endotricha* Zeller, 1847 de China (Lepidoptera: Pyralidae)

Resumen

Endotricha minutiptera Li, sp. n. se describe de Hainan, China. *Endotricha loricata* Moore y *E. ragonoti* Christoph se citan por primera vez para China. Se suministran imágenes de los adultos y de las genitalias de las tres especies.

PALABRAS CLAVE: Lepidoptera, Pyralidae, *Endotricha*, nueva especie, China.

Introduction

The genus *Endotricha* Zeller, 1847 is characterized by the forewing usually having a dark-colored ground coloration, the male gnathos being flat and platelike, and the female corpus bursae with a spined signum. The genus currently comprises more than one hundred world species (WHALLEY, 1963; VIETTE, 1978; YOSHIYASU, 1987, 1989; KIRPICHNIKOVA, 2003). Prior to this study, 30 species were recorded from China (WANG & LI, 2005). After careful examination of the additional specimens collected since 2005 and on the basis of the former study, we identified one new species of the genus and describe it here, along with a report of the two species new to the Chinese fauna.

Material and methods

The adult specimens used in this study were collected by using light traps. Terminology mainly follows WHALLEY (1963). Genitalia slides were made by mounting the dissected parts in Canada balsam following the methods introduced by LI & ZHENG (1996). Images of the adults and genitalia were prepared with an Olympus C-7070 digital camera. All the studied specimens, including the types of the new species, are deposited in the Insect Collection, College of Life Sciences, Nankai University, Tianjin, China.

Endotricha minutiptera Li, sp. n. (Figs. 1, 4, 7)

Material examined: Holotype: ♂, China: Mt. Jianfengling (18° 70' N, 108° 80' E), Hainan Province, 940 m, 4-VI-2007, leg. Zhiwei Zhang and Weichun Li, genitalia slide No. SYL07279. Paratypes: 1 ♂ (genitalia slide no. SYL08056), 1 ♀ (genitalia slide no. SYL07280), 4-5-VI-2007, other same data as for holotype.

Description: Adult (Fig. 1): Wingspan 11.0-11.5 mm. Head deep grayish brown. Antenna yellowish brown, annulated with blackish brown dorsally, ciliate in male. Labial palpus grayish brown except tips of second and third segments pale yellow. Thorax deep gray. Forewing triangular in shape, grayish black, with scattered reddish-purple scales; costal margin with five small white dots along distal 3/5, larger yellow spot situated between two distal dots; antemedial line broad, arched outward, yellowish white; reddish-purple scales diffused between antemedial line and yellow spot below costal margin, forming short reddish-purple streak; discocellular spot small, black; subterminal line reddish purple, edged by blackish brown on inner side; terminal line black, edged with reddish purple on inner side; cilia at apex reddish brown basally and black distally, pale yellow from below apex to middle of termen, black mixed with grayish white and reddish purple on posterior half of termen, brown mottled reddish purple on tornus. Hindwing black, covered with reddish purple; costal margin yellowish white, becoming reddish purple distally; antemedial and postmedial lines reddish purple, broad; terminal line black; cilia with basal 1/3 brown mixed with reddish purple, distal 2/3 grayish white tinged with yellow, with pale reddish purple on tornus. Legs grayish white dorsally, grayish brown ventrally.

Male genitalia (Fig. 4): Uncus T-shaped, protruding at middle on posterior margin; lateral arm long and slender, thinned gradually to pointed apex, concave ventrally, drooping distally; uncus arm blunt apically; uncus process eyebrowlike. Gnathos large, more or less rounded; lateral arm thin, bandlike. Valva broad, narrowed slightly at base, protruding dorsoapically; basal half of costa protrudent; transtilla sclerotized, narrowed medially. Saccus with basal 3/5 large and broad, distal 2/5 digitate, straight, rounded at apex. Juxta larger, irregularly rounded, with a cluster of large thorns at centre near posterior margin. Vinculum broad band-shaped; saccus inconspicuous. Aedeagus about half length of valva, straight, basal 1/3 oval, rounded apically.

Female genitalia (Fig. 7): Papillae anales somewhat triangularly shaped, finely haired. Posterior apophyses long and thin, about 2.5 times length of anterior apophyses. Ostium bursae weakly sclerotized. Antrum funnellike, spinulate. Ductus bursae short, membranous. Corpus bursae elongate, twice as long as anterior apophyses, basal 1/4 obviously granulate; signum small, nearly rounded, with teeth arranged radiately, placed at anterior 1/3; ductus seminalis arising from posterior end of corpus bursae.

Diagnosis: This species belongs to the *costaemaculalis* species group characterized by the T-shaped uncus. It can be separated from its congeners by the much smaller body size (with wingspan less than 11.5 mm). The male genitalia are similar to those of *E. fuscobasalis* Ragonot, 1891 by having a T-shaped uncus and a broad valva, but *E. minutiptera* can be distinguished by the uncus with the long and slender lateral arms concave ventrally and drooping distally, the valva slightly protruding dorsoapically, and the juxta irregularly rounded. In *E. fuscobasalis*, the lateral arms of the uncus are short and extend horizontally, the valva is blunt dorsoapically, and the juxta is somewhat elongate.

Distribution: China (Hainan).

Etymology: This specific name is derived from the Latin *minutus*- (small) and from the Greek πτερος (*pteros* - wing), referring to the short wingspan.

Endotricha loricata Moore, 1888 (Figs. 2, 5, 8)

Endotricha loricata Moore, 1888: 206.

Pyrallis ustalis Hampson, 1893: 159.

Material examined: 1 ♂, 4 ♀♀, China: Tropical Botanic Garden (21° 40' N, 101° 50' E), Mengla County, Yunnan Province, 570 m, 15-VIII-2005, coll. Yingdang Ren.

Description: Wingspan 16.0 mm.

Distribution: China (Yunnan); Ceylon, India, Pakistan.

Diagnosis: This species is very similar to *E. melanochoera* Turner, 1911 in the male genitalia, but can be distinguished by the valva greatly protruding and narrowly pointed dorsoapically, the terminal of the valva straight oblique and forming a conspicuous blunt ventral angle; the sacculus strong and shorter than half length of the valva, its ventral margin deeply concave inward at about middle. In *E. melanochoera*, the valva is rounded dorsoapically, the terminal of the valva is bluntly oblique, not forming a conspicuous ventral angle; the sacculus is thin and longer than half length of the valva, and its ventral margin is almost smooth.

Remarks: This species is new to China. The female corpus bursae is distinctly elongate, which is slightly different from that provided by WHALLEY in 1963.

Endotricha ragonoti Christoph, 1893 (Figs. 3, 6, 9)

Endotricha ragonoti Christoph, 1893: 96.

Endotricha albicinctalis Hampson, 1903: 206

Material examined: 1 ♂, 3 ♀♀, China: Beitun, Xinjiang Uygur Autonomous Region, 530 m, 20-VII-1994, coll. Houhun Li and Hongyan Qin; 1 ♂, 4 ♀♀, Beitun (47° 18' N, 87° 48' E), Xinjiang Uygur Autonomous Region, 512 m, 20-VII-2007, coll. Xipu Wang *et al.*

Description: Wingspan 18.0 -18.5 mm.

Distribution: China (Xinjiang); Central Asia and Indian subcontinent (WHALLEY, 1963).

Diagnosis: The male genitalia of this species are very close to those of *E. flammealis* ([Denis and Schiffermuller], 1775), but *E. ragonoti* can be separated by the uncus of the male being greatly concave laterally at about the middle, the valva roundly protruding dorsoapically, and the corpus bursae of the female expanded slightly at about posterior third. In *E. flammealis*, the uncus in male is gently concave laterally, the valva is bluntly rounded dorsoapically, and the corpus bursae of the female is not expanded at posterior third.

Remarks: This species is new to China.

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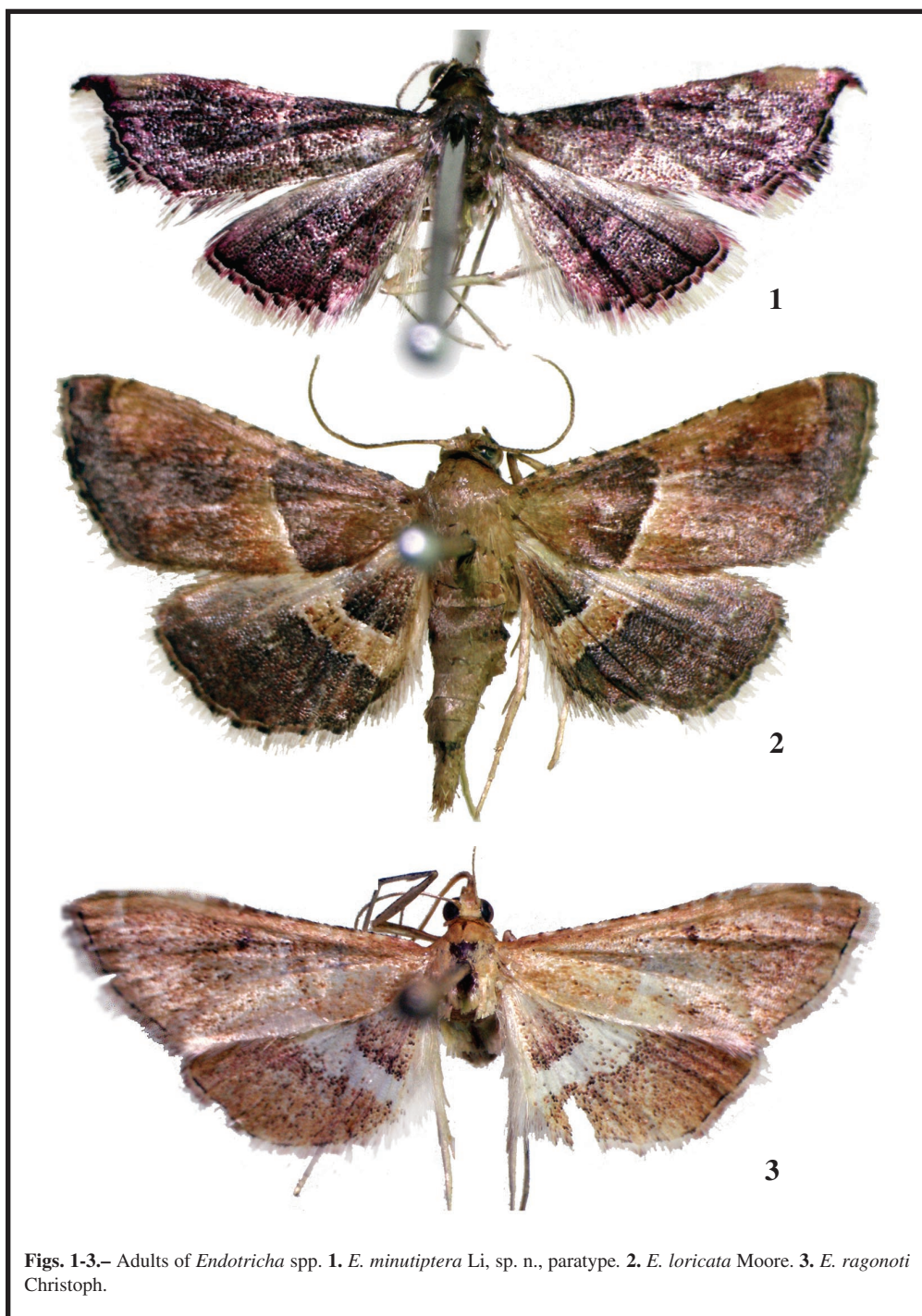
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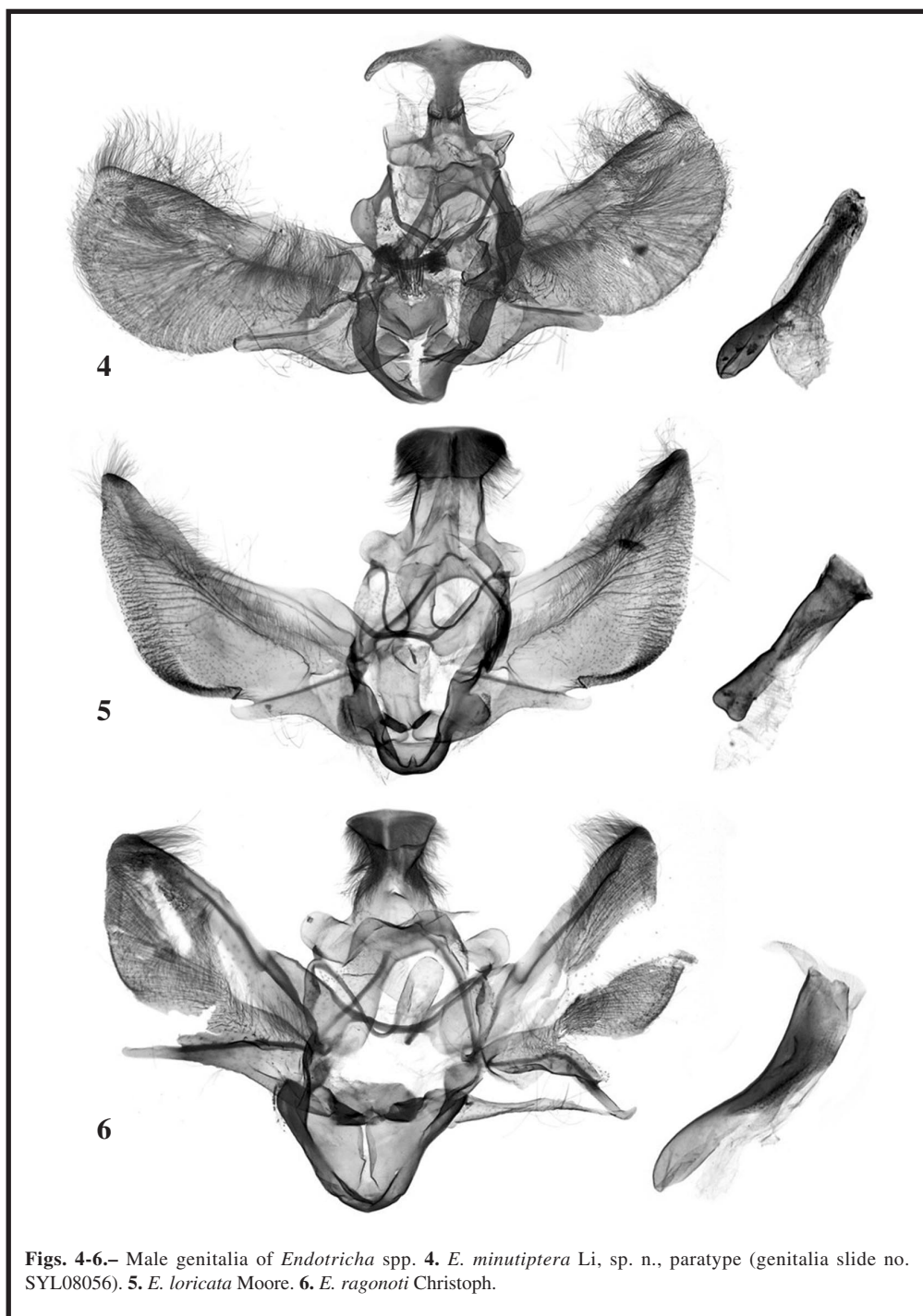
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Figs. 1-3.— Adults of *Endotricha* spp. **1.** *E. minutiptera* Li, sp. n., paratype. **2.** *E. loricata* Moore. **3.** *E. ragonoti* Christoph.





Figs. 7-9.— Female genitalia of *Endotricha* spp. **7.** *E. minutiptera* Li, sp. n., paratype (genitalia slide no. SYL007280). **8.** *E. loricata* Moore. **9.** *E. ragonoti* Christoph.