

A new species of the genus *Coarica* Moore (Lepidoptera: Erebidae) from China

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Abstract: The second species of the genus *Coarica* Moore, 1882, *C. dingi* Cheng & Han **sp. nov.**, is described from Shaanxi Province in China. A key to the *Coarica* based on the male genitalia is provided.

Key words: Noctuoidea; Hypeninae; taxonomy; key

中国盗胸夜蛾属一新种记述（鳞翅目：目夜蛾科）

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摘要: 记述中国盗胸夜蛾属 1 新种: 丁氏盗胸夜蛾 *C. dingi* Cheng & Han **sp. nov.**, 分布在中国陕西省, 是本属的第 2 个种; 文中还提供了本属基于雄性外生殖器特征的分种检索表。

关键词: 夜蛾总科; 髯须夜蛾亚科; 分类; 检索表

Introduction

The genus *Coarica* Moore, 1882 was established by Moore, based on the type species *Coarica fasciata* Moore, 1882 from Darjeeling in India. Until now, this genus only contains the type species. Recently, Yoshimoto (1993) and Haruta (1994) recorded *C. fasciata* from Nepal. Chen (1999) found it from Hubei Province in China. Kononeko & Pinratana (2005, 2013) recorded it distributed in China, Thailand, India, Nepal, Indonesia and Philippines. In this study, the second species of the genus *Coarica*, *C. dingi* Cheng & Han **sp. nov.**, is described from Shaanxi Province in China.

Material and methods

The specimens were trapped by a mercury lamp at night in Shaanxi Province. Photos of the adult specimens were taken with the Canon PC1057 camera. Dissection and preparation of

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the genitalia slides followed standard methods (Kononenko & Han 2007). Photos of the genital slides were taken by the Zeiss stereoscope using Qimaging Q24659 and Auto-Montage software. Pictures were further processed using Adobe Photoshop CS6. All specimens of this new species are deposited in the collections of IZCAS (Institute of Zoology, Chinese Academy of Sciences, Beijing, China) and NEFU (Northeast Forestry University, Harbin, China).

Taxonomy

Genus *Coarica* Moore, 1882

Coarica fasciata Moore, 1882: 153, pl. 5, fig. 1; TL: Darjiling.

Coarica fasciata: Yoshimoto, 1993: 74, pl. 53, fig. 6; Haruta, 1994: 149; Chen, 1999: 1168, pl. LXI-17; Kononeko & Pinratana, 2005: 60, pl. 15, figs 26, 27; Kononeko & Pinratana, 2013: 45.

Coarica dingi Cheng & Han sp. nov. (Figs 1, 2, 7, 9)

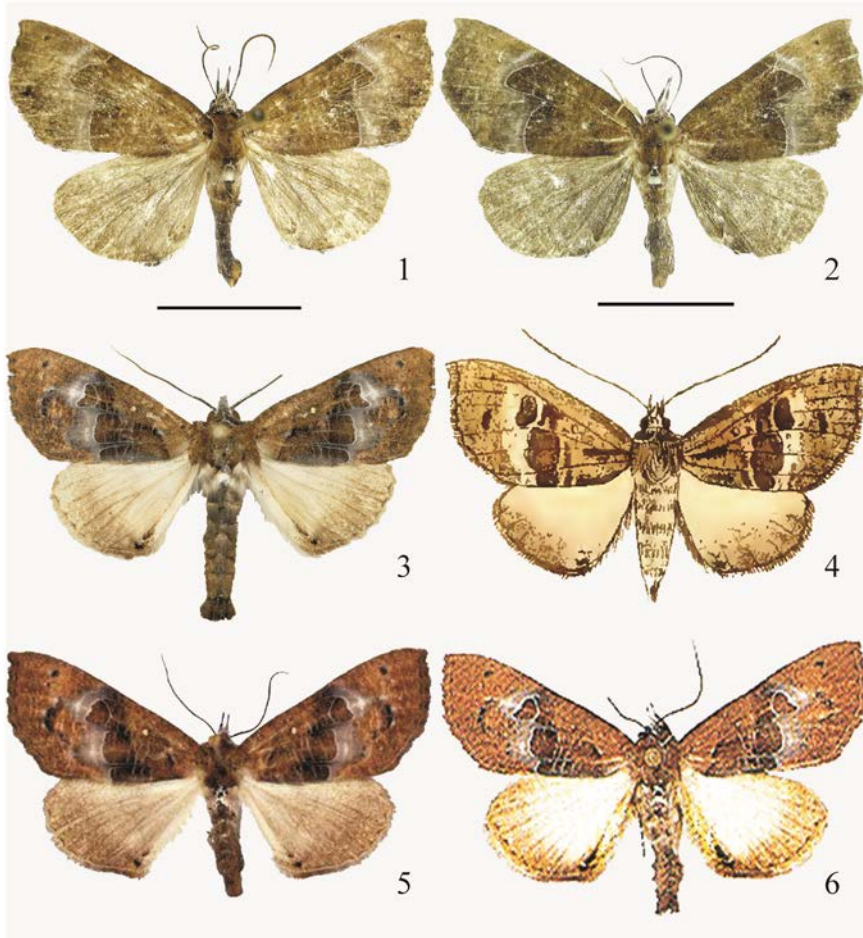
Description (Figs 1, 2). Wingspan 28.5–29.3 mm. Head brown, spread with light whitish grey. Thorax dark brownish red; patagium mixed black; metathorax thin brownish grey. Abdomen light smoky black, spread with brown. Forewing ground color brown, mixed with a little red; antemedial line black, incurved, blurred; median line discarded; postmedial line double, arises and excurved from costal margin to M_3 , then extending inward to basal of Cu_1 , and smooth and excurved to inner margin, inner line slender, white and distinct, exterior line rather broader, halo blurred; subterminal line black and indistinct, only displaying 2 or 3 dots at R_4 - R_5 , M_3 - Cu_1 and Cu_2 -2A; terminal line brownish grey and slender; apex horn-shaped; outer margin smooth and excurved, with a small incurve at apex area; orbicular and reniform spots badly blurred; the ground color between basal part and postmedial line darker than terminal and subterminal lines region. Hindwing lighter than forewing, discal spot arc-shaped and indistinct; inner margin region with a smoky black and blurred band; anal spot black.

Male genitalia (Fig. 7). Uncus hook-shaped; tegumen 1.5 times longer than vinculum; juxta long, not separated in lobes. Valva 2 times longer than tegumen, expanded apically; transtilla sclerotized and short; costa smooth and roundly curved; sacculus rather straight, slightly constricted medially; sacculus extension about as long as 6/7 of valva, with a small dentate process at middle, incurved apically; harpe lies in longitudinal position, sclerotized, along costa, basally fused with costa, rather straight and slender, with a small and smooth incurve at top, about as long as 1/2 of valva; cucullus round. Saccus V-shaped. Aedeagus weakly sclerotized, significantly bent; caecum cone-shaped; ductus ejaculatorius arising at middle part. Vesica with a long and sclerotized cornuti band at dorsal diverticulum, and process with more grain; with a short sclerotized cornuti band at ventral part.

Female genitalia (Fig. 9). Ovipositor short and wide, papillae anales thick, cone-shaped. Apophysis anterioris very short, triangle at basal part; apophysis posterioris slender, 3 times longer than apophysis anterioris. Antrum large and wide; ostium plate forms triangular ridge. Ductus bursae short and wide, strongly sclerotized and shrunk. Corpus bursae broad and oval-shaped, densely covered with small grains, with a small signum at right of the second half. Appendix bursae broad, membranous.

Holotype. ♂, **China**, Prov. Shaanxi, Huangling, Xiangfang Village, alt. 1041 m,

25–26-VII-2020, leg. Changping DING, genit. prep. 00689, coll. IZCAS. **Paratypes.** 1♂1♀, same data as holotype, genit. prep. 00690, coll. IZCAS, NEFU (male); 1♀, **China**, Prov. Shaanxi, Tongchuan, Yaozhou District, Hongye Post Station, alt. 1350 m, 27–28-VII-2020, leg. Changping DING, coll. NEFU.

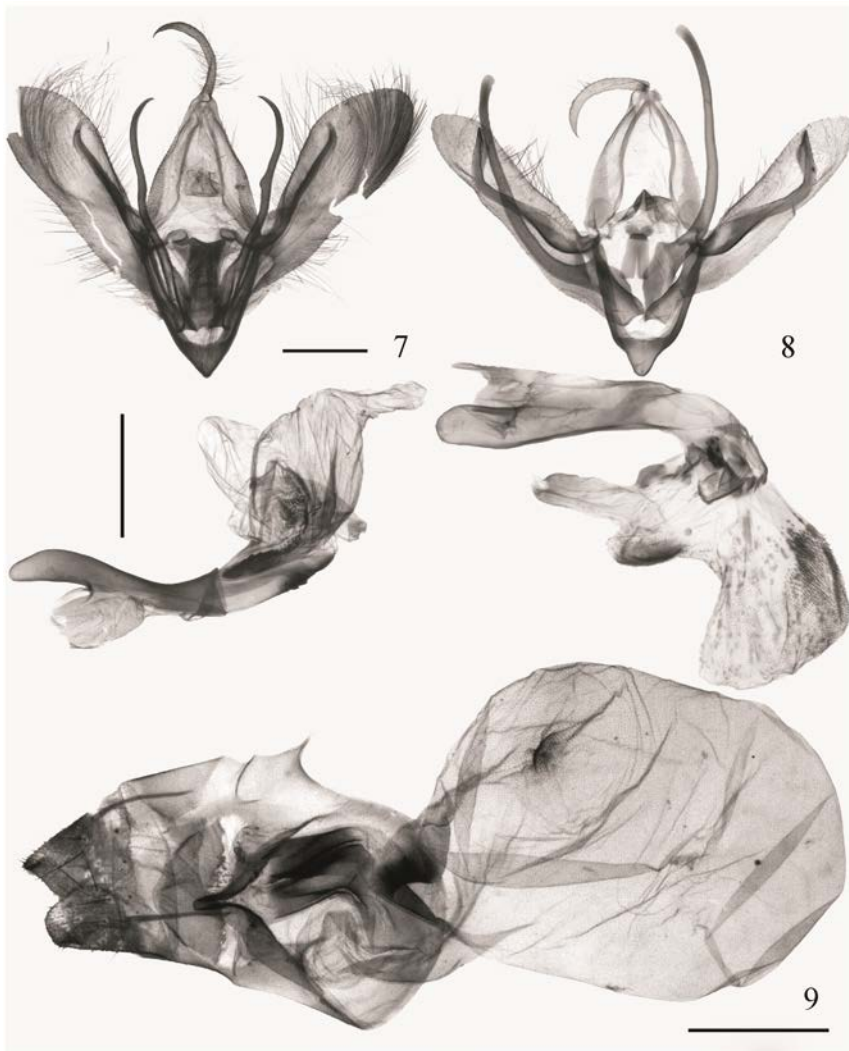


Figures 1–6. Adults of *Coarica* spp. 1, 2. *C. dingi* **sp. nov.**, China (Shaanxi). 1. ♂, holotype; 2. ♀, paratype. 3. *C. fasciata*, China (Xizang); 4. *C. fasciata* (after Moore 1882); 5. *C. fasciata* (after Kononenko & Pinratana 2005); 6. *C. fasciata* (after Yoshimoto 1993). Scale bars = 1 cm.

Etymology. The species epithet is dedicated to the collector of the type materials, Mr. Changping DING.

Diagnosis. This new species is similar to *Coarica fasciata* Moore, 1882 (Figs 2, 8). It can be separated from the former by the following characters (*C. fasciata* details are in parentheses): wingspan 28.5–29.3 mm (31.0–33.5 mm); metathorax thin brownish grey (metathorax greyish white); apex of forewing horn-shaped (apex small and smooth, horn-shaped); antemedial line indistinct (distinct in latter part); postmedial line with only an inward bent at Cu_1 , inner line white and distinct, exterior line apparent (with two inward bends at Cu_1 and 2A, inner and exterior lines rather indistinct); orbicular and reniform spots badly

blurred (orbicular spot small, round whitish yellow; reniform spot irregular semicircular, with white rim); hindwing without white (with greyish white to white). In the male genitalia, harpe rather straight and slender, with a small and smooth incurve at top (harpe thick, expanding at basal part, with big incurve far away, 2/3 from basal part); saccular extension as long as 3/4 of valva, with a small dentate process at middle, and sharp at top (saccular extension longer than valva, without dentate process, and rounded at top); valva broad (valva narrow); aedeagus significantly bent, caecum cone shaped (aedeagus straight, caecum tube-shaped); vesica with a long and sclerotized cornutus band at dorsum, a short sclerotized cornutus band at ventral part (vesica only with a small cornuti lump at base, and with two grain fields at median and apical diverticula).



Figures 7–9. Genitalia of *Coarica* spp. 7. *C. dingi* sp. nov., ♂, genit. prep. 00689, holotype, China (Shaanxi); 8. *C. fasciata*, genit. prep. hhl-2578-1, China (Xizang); 9. *C. dingi* sp. nov., ♀, genit. prep. 00690, paratype, China (Shaanxi). Scale bars = 1 mm.

Key to the species of the genus *Coarica* Moore, 1882 based on the male genitalia

1. Harpe straight and slender; saccular extension shorter than valve; valva broad; vesica with two cornuti bands..... *C. dingi*
 -. Harpe thick with big incurve; saccular extension longer than valva; valva narrow; vesica only with a small cornuti lump *C. fasciata*

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