



A NEW SPECIES OF *ACRONICTA* OCHSENHEIMER, 1816 FROM CHINA (LEPIDOPTERA, NOCTUIDAE, ACRONICTINAE)

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Abstract: A new species of *Acronicta*, *A. fuscusana* **sp. n.** (China, Guangxi) is described. Illustrations of the male and female genitalia of the new species are provided. A diagnostic comparison is made with *Acronicta subpurpurea* (Matsumura, 1926) and *Acronicta edolatina* Draudt, 1937.

Key words: Lepidoptera, Noctuidae, Acronictinae, *Acronicta*, new species, China, Guangxi

INTRODUCTION

Acronicta Ochsenheimer, 1816 is a large, worldwide distributed genus of the subfamily Acronictinae. It includes more than 150 species, divided into nine subgenera (FIBIGER *et al.* 2009, HAN & KONONENKO 2010). The examination of the Chinese *Acronicta* material from Guangxi and Sichuan revealed the existence of an undescribed species being the close relative of *A. subpurpurea*. Present paper contains the descriptions of a new species of the *A. subpurpurea* group which contained formerly two species, *A. subpurpurea*, and *A. edolatina*.

Abbreviations: GR = collection of Gábor Ronkay; OP = genitalia slide prepared by/collection of Oleg Pekarsky.

SYSTEMATIC PART

Acronicta fuscusana **sp. n.**

(Figs 1, 2)

Holotype. Male, China, Guangxi, Yuecheng Ling, 26°06'N, 110°54'E, 1800 m, 1–16.V.2008, leg. V. Sinyaev; slide OP10410m (coll. O. Pekarsky).

Paratype. 1♀, China, Sichuan, Lao Lin Kou, 1900 m, 28°21'N, 103°26'E, 26.VI.–12.VII.2008, leg. V. Sinyaev; slide OP7016f (coll. O. Pekarsky).

Etymology. The name of the species refers to the brownish colouration of the forewings.

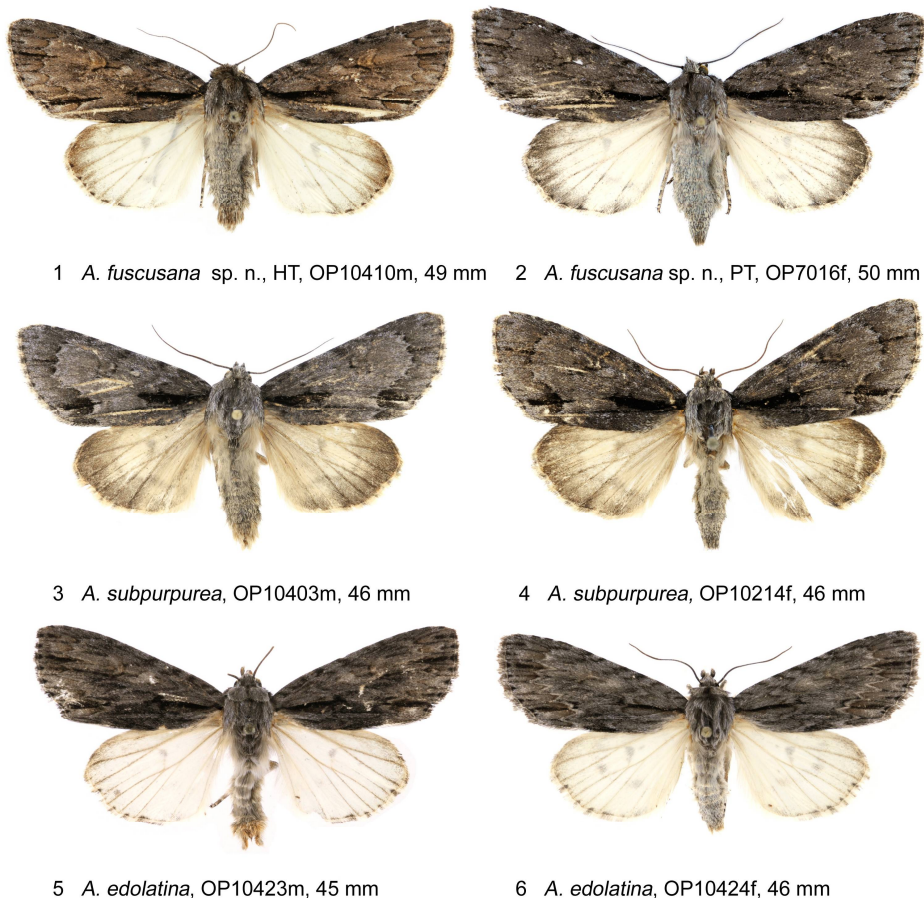
Diagnosis. The new species belongs to the *subpurpurea* species-group (a group characterized by the prominent, heavily sclerotised ventro-lateral plate of clasper fused with the ventro-apical part of sacculus, forming a large, plate-like structure, see the Figs 7–9). The male genitalia of the earliest described species of the group were illustrated for the first time by SUGI in 1968 as a drawing.

Acronicta fuscusana resembles externally *A. subpurpurea* (Figs 3, 4) and *A. edolatina* (Figs 5, 6) but is separable from them by both its external and genital features. The new species is larger in size (wingspan 49–50 mm versus 42–47 mm and 43–48 mm, respectively), the most prominent distinguishing external feature is the brownish tint of the forewing, which is rather dark grey in the related species. Additionally, the inner area of the hindwing of *A. fuscusana* is clear white in both sexes whereas the marginal field is creamy-white with wide brown terminal band; the hindwings in *A. edolatina* are clear white without darker marginal band, whereas those of *A. subpurpurea* are intensively suffused by light brownish, having broader grey-brown outer band.

In the male genitalia, the differences are conspicuous, distinguishing clearly the three known members of the species group. The specific feature of *A. fuscusana* (Fig. 7) is the shape and size of the clasper-sacculus complex which is far the largest in the three species, forming an elongated, and broad plate with more or less rectangular apical part, whereas the erect part of the clasper is long and curved. In comparison, *A. subpurpurea* (Fig. 8) has much smaller, rather birdhead-like sclerotised plate and shorter, less curved and thicker erect part of clasper; in *A. edolatina* (Fig. 9) the sclerotised plate is even smaller and the erect part of clasper is shorter than in the two relatives.

The female genitalia of the new species (Fig. 10) differ from those of *A. subpurpurea* (Fig. 11) and *A. edolatina* (Fig. 12) by the larger size of the entire organ, and the corpus bursae is somewhat longer and narrower, more sacculiform than in *A. subpurpurea*.

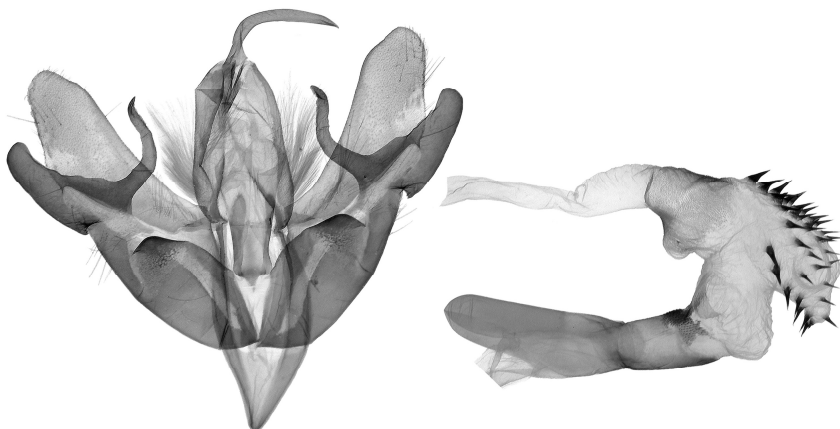
Description. (Figs 1, 2). External morphology. Wingspan 49–50 mm (holotype 49 mm). Head, thorax, tegulae, collar and abdomen dark grey. Forewing elongated with costa almost straight; apex pointed; outer margin rounded, moderately oblique. Ground colour greyish-brown; wing pattern strong; basal dash thick, straight, with two short, thin distal branches; tornal dash thin, straight, reaching medial area; crosslines well-developed, dark brown; subbasal line curved marked on costa by blackish streaks; antemedial line dentate, oblique, double; medial line curved; postmedial line serrate; subterminal line distinct; terminal line hardly traceable; cilia as ground colour. Hindwing clear creamy-white with curved, greyish medial line and wide, brown marginal band; discal spot large, greyish, triangular; veins well marked with fine brown suffusion; terminal line a row of blackish-brown dots; cilia white with brownish outer half.



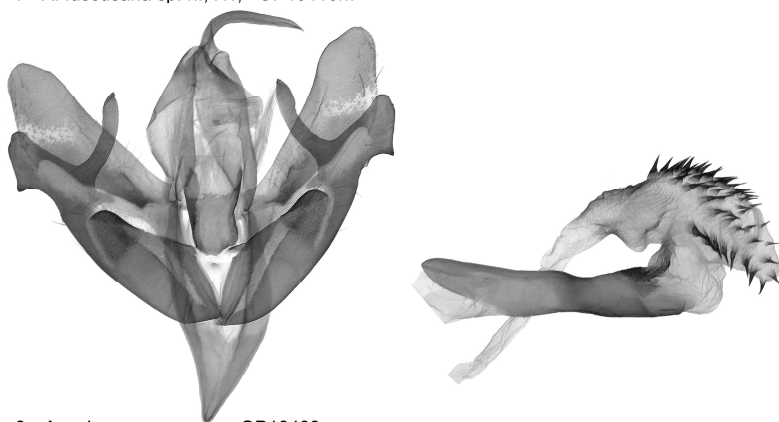
Figures 1–6. *Acronicta* spp, adults. **1)** *A. fuscusana* sp. n., male, HT, China, Guangxi (OP); **2)** *A. fuscusana* sp. n., female, PT, China, Sichuan (OP); **3)** *A. subpurpurea*, male, Japan, Nagano (OP); **4)** *A. subpurpurea*, female, Japan, Nagano (GR); **5)** *A. edolatina*, male, China, Sichuan (OP); **6)** *A. edolatina*, female, China, Sichuan (OP).

Male genitalia (Fig. 7). Uncus stem rod-like, medium-long, curved at first third, apex finely pointed; tegumen belt-like, shorter than vinculum; juxta shield-like, with two posterior extensions; valva large, broad, slightly tapering distally, cucullus membranous, without corona; sacculus prominent, large, dorso-apically stronger sclerotized, its ventro-apical section fused with basal plate of clasper forming large, elongated, heavily sclerotised plate with rather rectangular posterior apex; editum narrow, elongated, hump-like, covered with thin, long sensorial seta; erect part of clasper long, strong, curved medially, thickening posteriorly with slightly curved, fine tips, its basal plate massive elongated, fused with ventro-apical elongation of sacculus. Aedeagus near straight, cylindrical, medium-long, carina with small,

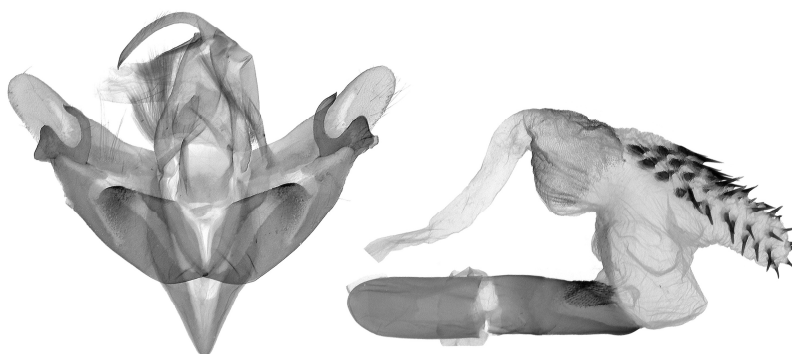
scobinated area; vesica membranous, its main chamber with wide, elongated cornuti field consisting of short but strong, acutely pointed, finely bulbed cornuti.



7 *A. fuscusana* sp. n., HT, OP10410m



8 *A. subpurpurea*, OP10403m



9 *A. edolatina*, OP10423m

Figures 7–9. *Acronicta* spp, male genitalia. **7)** *A. fuscusana* sp. n., HT, China, Guangxi (OP); **8)** *A. subpurpurea*, Japan, Nagano (OP); **9)** *A. edolatina*, China, Sichuan (OP).

Female genitalia (Fig. 10). Ovipositor large, broad, tapered, papillae anales hairy with thin setae; apophyses anteriores long, straight, thickening to their tip, apophyses posteriores thin, longer than apophyses anteriores. Ostium bursae large, moderately sclerotized; ductus bursae wide, wrinkled, bent medially; corpus bursae large, elongated, saccate, membranous throughout, appendix bursae small, anteriorly directed, membranous.



10 *A. fuscusana* sp. n., PT, OP7016f

11 *A. subpurpurea*, OP10214f

12 *A. edolatina*, OP10424f

Figures 10–12. *Acronicta* spp, female genitalia. **10)** *A. fuscusana* sp. n., PT, China, Sichuan (OP); **11)** *A. subpurpurea*, Japan, Nagano (GR); **12)** *A. edolatina*, China, Sichuan (OP).

Biology and distribution. The new species occurs in the mountainous areas of Guangxi and Sichuan Provinces in China.

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