

Descriptions of two New Subspecies of the Genus *Antigius* Sibatani et Ito (Lepidoptera: Lycaenidae) from China

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Abstract: Two new subspecies of the genus *Antigius* Sibatani et Ito are described from Zhengjiang and Guangdong Provinces. *A. cheni zhengjiangensis* ssp. n. is separated from the nominate subspecies from Sichuan by the less developed white marking on hind wing and the broader distal cell streaks on wing underside. *A. butleri nanlingensis* ssp. n. is distinguished from the nominate subspecies by the less developed white marking on hindwing upperside, much broader postdiscal bands on undersides of both wings and the discocellular and mid-cell bars much narrower than the postdiscal bands on both wings.

Key words: Lepidoptera; Lycaenidae; *Antigius*; new subspecies, China

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中国青灰蝶属 *Antigius* Sibatani et Ito 二新亚种描述

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摘要:描述了产自浙江和广东的青灰蝶属 *Antigius* Sibatani et Ito 两新亚种, 即陈青灰蝶浙江亚种 *A. cheni zhengjiangensis* ssp. n. 和巴青灰蝶南岭亚种 *A. butleri nanlingensis* ssp. n. 前者以后翅正面欠发达的白斑以及翅反面较宽的中室端带易于和指名亚种相区别; 后者后翅正面白斑较小, 两翅反面后中带较宽, 中室中带和中室端带明显比后中带窄而易于与指名亚种相区别。

关键词:鳞翅目; 灰蝶科; 青灰蝶属; 新亚种; 中国

The genus *Antigius* Sibatani et Ito is a small E. Asian genus of the tribe Theclini, which is distributed in China, Mongolia, Myanmar, Russia (Far East), Korea and Japan. The genus was erected in 1942 with *Thecla attilia* Bremer as its type species. Two species were included in the genus in Shirôzu et Yamamoto's^[1] revision on the tribe Theclini worldwide, in which only the type species was recorded from China. The second species, *Antigius butleri* was reported from E. China by Wang^[2] and C. China by Yoshino^[3]. Two additional species were added recently, one from N. Myanmar,

and another from Zhejiang Province^[4]. So, three species of the genus are recorded in China: *A. attilia*, *A. butleri* and *A. cheni*^[4-5].

Recently, when sorting materials from various institutions, two new subspecies of the genus are confirmed and hereby described.

Key to *Antigius* species from China

- 1 Forewing underside with a slant central band in the cell *A. butleri*
- Forewing underside without central band in the cell 2

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2 Postdiscal band on hindwing underside straight, and slightly shifted basally *A. attilia*
 Postdiscal band on hindwing underside curved and slightly shifted outwardly *A. cheni*

***Antigius cheni zhengjiangensis* Wang et Qian, ssp. n. (Fig. 1)**

[*Teratozephyrus picquenardii* (Oberthür), Tong X. S. (ed.), 1993, *Butt. Fauna Zhejiang*: 56, pl. 53, fig. 507-508.]^[6]

Male. Forewing length 16 mm, antenna length 6.5 mm. Head moderate in size with vertex swollen, frontoclypeal area broader than the breadth of the eye, frons covered with long scales, palpi long, with the third segment about one third length of the second segment, eyes sparsely haired ventrally; antennae black with narrow white intersegmental rings, club slim and uniformly black except for the tip yellowish brown.

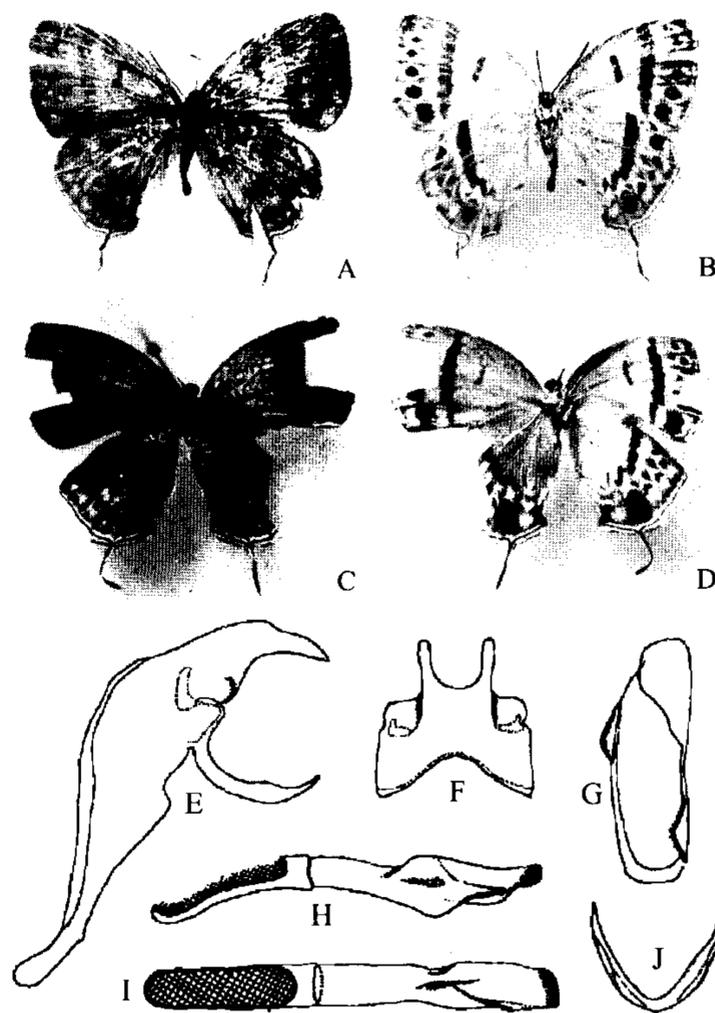
Thorax brown with long grayish hairs, beneath gray, densely covered with whitish hairs. Fore leg with tarsus fused in male, segmented in female. Abdomen dark brown, densely covered with short grayish hairs, beneath white, pubescent; legs white gray except for tarsi black with white intersegmental rings, foretarsus reduced to a single segment. Forewing almost triangular, with termen distinctly curved outwardly near tornus angle. Forewing with 11 veins, veins M_1 and R_{4+5} not stalked. Hindwing with a slim tail at vein CuA_2 .

Upperside. Forewing ground color brownish, without markings, cilia white gray. Hindwing ground colour same as forewing, with a series dull gray white patches in submarginal area, marginal line white. Cilia white gray. Tails black, slim and long, white distally; cilia white inwardly and black outwardly.

Underside. Forewing ground colour gray white with dark brown markings. Discocellular bar narrow, postdiscal band broad and well defined, submarginal series consisting of black spots with the lower spots gradually larger, marginal line distinct and fine. Hindwing ground color the same as that on forewing, with postdiscal band, submarginal series and marginal line dark brown and well defined, postdiscal band with lower part wavy and slightly slim and curved inwardly, submarginal series consisting of black spots with the ones in spaces $Sc + R_1$ and CuA_1 much larger, tornal area with orange patch along with the black spot in space CuA_1 forming an eye-spot.

Male genitalia with the lateral process of tegumen

weakly developed, uncus broad, deeply bifurcated, slightly curved downwardly, brachia long and slender, strongly falcated, ending in pointed tip, with base completely fused with the lateral process of tegumen, the latera windows narrowed, succus short and stout, socii lobe-form, valva plain in structure, narrowed, without any projection, sacculus trigonate, aedeagus extremely large, with the suprzonal sheath much longer than the subzonal sheath, the former one swollen medially and the distal extremity spatulated, the vesical opening located on the ventral side, cornutus represented by a triangular sclerite, subzonal sheath blunt at the base, bulbus ejaculatorius rather low, juxta band-like, V-shaped.



A: Holotype male, upperside; B: Ditto, underside; C: Paratype female, upperside; D: Ditto, underside; E: Ring, lateral view; F: Tegumen, dorsal view; G: Valva, inner view; H: Phallus, lateral view; I: Phallus, dorsal view; J: Juxta

Fig. 1 *Antigius cheni zhengjiangensis* ssp. n.

Female. Similar to male in appearance.

Holotype male, Mt. Jiulongshan, Shuichang County, June 20, 1991, Zhejiang Province, Coll. Qian Zuqi.

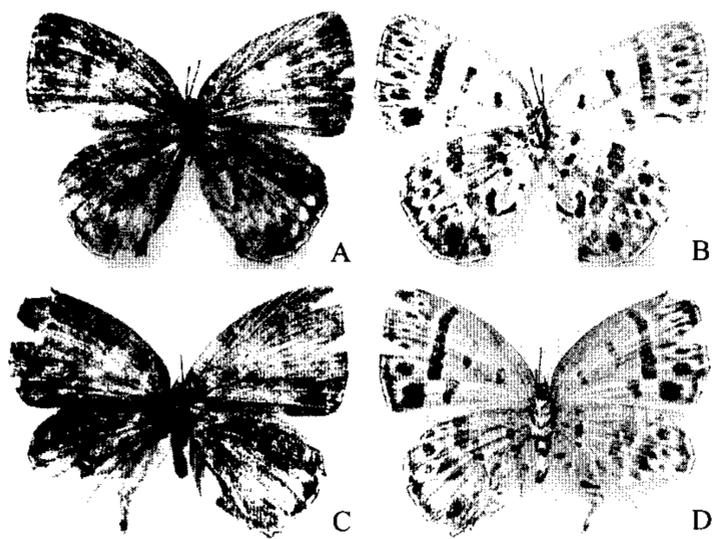
Paratype: 1 female, Mt. Fengyangshan, Longquan County, Zhejiang Province, June 12, 1980, Coll. Tong Xuesong. Type specimens are deposited in the Institute of Agricultural Research, Lishui Prefecture, Zhejiang Province.

This new subspecies is separated from the nominate subspecies by the less developed white marking on hind wing and the broader distal cell streaks on wing underside.

Antigius butleri nanlingensis Wang,
ssp. nov. (Fig. 2)

Male. Forewing length 19.2 mm, antenna length 7 mm. Head moderate in size with vertex swollen, frontoclypeal area slightly broader than the breadth of the eye; frons covered with long scales, gray white; palpi long, white apart from the third segment and distal 1/3 of the second segment black dorsally and bilaterally, eyes sparsely haired ventrally; antennae black with narrow white intersegmental rings, club slim and uniformly black except for the tip yellowish brown.

Thorax brown with long grayish hairs, beneath white, densely covered with whitish hairs; foreleg with tarsus fused.



A: Holotype male, upperside; B: Ditto, underside; C: Paratype, male, upperside; D: Ditto, underside

Fig. 2 *Antigius butleri nanlingensis* ssp. n.

Abdomen dark brown, densely covered with short grayish hairs, beneath white, pubescent; legs white gray except for tarsi black with white intersegmental rings, foretarsus reduced to a single segment. Forewing almost triangular, with termen distinctly curved outwardly near tornus angle. Forewing with 11 veins, veins M_1 and R_{4+5} not stalked. Hindwing with a slim tail at vein CuA_2 .

Upperside. Forewing ground color brownish, without markings, cilia white gray. Hindwing ground colour same as forewing, with a series dull gray white patches and a black spot in spaces CuA_1 in submarginal area, marginal line white. Cilia white gray. Tails black, slim and long, white distally; cilia white inwardly and black outwardly.

Underside. Forewing ground colour brownish white with dark brown markings consisting of subbasal, distal cell, postdiscal, and submarginal series. Subbasal series representing by a vertical black band in central cell; discocellular bar narrow, postdiscal band broad

and well defined, with the lower part in space CuA_2 prominently shifted inwardly; submarginal series consisting of black spots with the lower spots gradually larger, marginal line white, distinct and fine. Hindwing ground color the same as that on forewing, with subbasal, distal cell, postdiscal, submarginal series dark brown and well defined, subbasal series representing by four black spots scattered in spaces $Sc + R_1$, cell, M_3 and $1A + 2A$; postdiscal band consisting of irregular spots, with lower part wavy and slightly slim and curved inwardly, submarginal series consisting of black spots ringed with white except the one space CuA_1 encircled with orange forming an ocellus.

Male genitalia. No significant differences were found from the nominate subspecies.

Holotype male, Mt. Dadongshan, Lianxian County, July 5, 1995, Guangdong Province, Coll. She Daojian.

Paratype 1 male, Mt. Dadongshan, Lianxian County, July 6, 1995, Coll. She Daojian.

Both of the type specimens are deposited in Sun Yat-Sen University, Guangzhou.

The new subspecies is distinguished from the nominate subspecies by the less developed white marking on hindwing upperside, much broader postdiscal bands on undersides of both wings and the discocellular and mid-cell bars much narrower than the postdiscal bands on both wings.

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