

## A new genus and two new species of Lepidoptera Satyridae, Sphingidae from Yunnan China

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### ABSTRACT

This paper reports a new genus and two new species of lepidoptera (Satyridae, Sphingidae) from the provincial nature reserve of Yongping County, Yunnan province. All the type specimens are deposited in Kunming Institute of Zoology, Chinese Academy of Sciences.

**Key words:** New genus; New species; Lepidoptera; Satyridae; Sphingidae; Yongping County; Yunnan province.

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### DIAGNOSIS OF NEW GENUS AND NEW SPECIES

***Callisatyrus* gen.nov.**

**Type species:** *Callisatyrus jinguangensis* Dong, sp. nov.

Body moderately sized to large. Brown yellow, with green luster. Vertex and frons strongly convex, conical, sharp. Fore wing and hind wing with wide white transverse band in the central part. Eyes smooth, glabrous. Antenna slender long, slightly short than half of fore wing long, rod distinct. Labipalpus long, reaching the posterior margin of the thorax, with hairs in the back. The middle and hind legs claw does not split. Fore wings vein base not swollen, middle cell concave. Hind wing with A<sub>2</sub> and A<sub>3</sub> anal vein, discoidal cell short, margin wavy. The hind wing in between M<sub>2</sub> and M<sub>3</sub> and Cu<sub>1</sub> and Cu<sub>2</sub> near end each with an eye spot.

Remarks: This new genus is allied to *Neorina* Westwood, 1850. The main difference characteristics are shown in Table 1.

***Callisatyrus jinguangensis* Dong, sp.nov. (Figure 1, 2)**

Female: body brown yellow, with green luster. Head sub cubic shape, about the chest tegulae monospaced. Eyes smooth, glabrous. Vertex and frons strongly convex, conical, sharp. Head brown, frons and the mouthparts gray white. Labipalpus long, reaching the posterior margin of the thorax, gray white. Antenna slender long, slightly short than half of fore wing long, rod distinct. All of the thorax and abdominal segments brown yellow, with green luster, ventral gray white. Wings broad, wing margin truncate, base vein not swollen, posterior margin nearly flat. Fore wing base and apex with brown, green, from the anterior margin to the posterior margin with one wide white transverse band; with two wavy black stripes at centre of band, each wing cell is formed separate dentate spots, with two wavy black stripes at apical margin. Medium cell brown, with four curved black transverse stripes. Hind wing slightly broad, with A<sub>2</sub> and A<sub>3</sub> anal vein, discoidal cell short, wavy margin. The base and the end of brown yellow, with green luster, with one central white transverse band, the outer transverse band with one fine wavy black stripes, wavy edge, discoidal cell short. The hind wing in between M<sub>2</sub> and M<sub>3</sub> and Cu<sub>1</sub> and Cu<sub>2</sub> near end each with an eye spot. The opposite side of the wing is light brown yellow, only the base and the end of the color is slightly deeper, eye spot obvious. Legs slender, middle and hind legs claw does not split. Abdomen cylindrical, hair thin. Body length: 28

mm, wing exhibition 95 mm. Male: unknown.

***Callambulyx yunnanensis* Dong, sp. nov. (Figure 3, 4)**

Female: Body length 40mm, wingspan 100mm. Wing brown, with small white markings. Head brownish, Front and face light brown. Antennae brown. In two sides of mesostrnum with a brown longitudinal stripes. Abdomen brown. Thorax brown. Frontal margin of fore wing curved, apex slightly short horn, baseline into two black line, middle line into a wide brownish slash line, tan outside, with a black slash line from the central front margin to hind margin of wing, posterior margin concave into wavy, The outer margin and posterior margin strong depression. Base trailing edge and back from base to central blood red. Hind wings shorter, leaf-like, central front slightly sunken, top blunt trailing edge slightly wavy. From the base

to the top of the central chamber in the blood red, abaxially grayish brown, from the front to the back edge near the top a central black diagonal line micro bending.

Remarks: The new species and the elm Sphinx *Callambulyx tatarinovi* (BremeretGrey) is similar, but this kind of length 40 mm, wingspan of 100 mm; the wing trailing edge bending, wavy edge and the trailing edge of the central depression and strong color can be significantly different.

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Table 1 A comparison between *Callisatyrus* gen.nov.and its allied.

Characteristics	<i>Neorina</i> Westwood	<i>Callisatyrus</i> gen.nov
Body color	Black or brown	Brown yellow, with green luster
Vertex	Raised portiors form atriangle	Raised portiors form conical, sharp
Antenna	Slender long, short than half of fore wing	Slender long, slightly short than half of fore wing long
Labipalpus	Labipalpus no long, no reaching the posterior margin of the thorax	Labipalpus long , reaching the posterior margin of the thorax
Wing spot	With white or yellow large oblique bands on the forewing	With a wide white transverse band on the forewing and hindwing central
Eye spot	Hind wing opposite sides of the small eye sopt in rs cell to cell Cu <sub>2</sub>	Hind wing in between M <sub>2</sub> and M <sub>3</sub> and Cu <sub>1</sub> and Cu <sub>2</sub> near end each with an big eye spot.
Wing exhibition	Wing exhibition 100 mm	Wing exhibition 95 mm

Figure 1



Figure 2



Figure 1, 2 *Callisatyrus jingguangensis* Dong, sp.nov. 1. Body of female, dorsal view; 2. Body of female, ventral view. Holotype female, Aso village, Yongping County, Yunnan; 2016. VIII.18; 25° 08.320N; 099° 31.931E, altitude 1721 m, Collected, Dazhi Dong.

Figure 3



Figure 4



Figure 3, 4 *Callambulyx yunnanensis* Dong, sp. nov. 3.ody of female,dorsal view; 4.Body of female, ventral view. Holotype female, Aso village ,Yongping County,Yunnan ; 2015.XI.3; 25° 08.320N; 099° 31.931E, altitude 1721m, Collected, Dazhi Dong

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