

***Schaffersiana lobitornus* gen. nov. spec. nov., a new species in a new genus  
(Erebidae, Arctiinae, Lithosiini) from Papua, Indonesia**

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**Abstract:** A new species from Papua, Indonesia is described which belongs to a new genus allied to *Lambulosia* Hampson, 1914 and *Darantasia* Walker, 1859. *Schaffersiana lobitornus* **gen. nov, spec. nov.** is described, the adult and genitalia are depicted. A comparison is made between the two supposed allied genera *Lambulosia* and *Darantasia*.

**Rangkuman:** Deskripsi spesies baru dari Papua Indonesia, yang termasuk dalam genus baru yang dekat kekerabatannya dengan *Lambulosia* Hampson, 1914 dan *Darantasia* Walker, 1859. *Schaffersiana lobitornus* **gen. nov, spec. nov.** dideskripsi, tahap dewasa dan alat kelaminnya digambarkan secara terperinci. Diberikan perbandingan antara dua genera *Lambulosia* dan *Darantasia* yang diduga sekerabat.

**Keywords:** New genus, new species, *Lambulosia*, *Darantasia*, New Guinea.

### **Introduction**

The first impression seeing the peculiar wingshape of this species is that it resembles that of species in the genera *Lambulosia* Hampson, 1914 and *Darantasia* Walker, 1859. Especially the smaller hindwings with some wrinkles and the tight fringes at the rim of the hindwing does remind at the males in those two genera. However, there are some conspicuous differences that cannot be matched with *Lambulosia* and *Darantasia*. Apart from some external differences described below with the new genus, the genitalia are also very different.

Although there is only the holotype to compare it is considered that with such clear differences it is justified to describe a new genus for this new species. It is expected that this genus is closely allied to *Lambulosia* and *Darantasia*.

### **Abbreviations used**

RMNH - Acronym of Naturalis Biodiversity Center, Leiden, The Netherlands

RV - Initials of Rob de Vos for the genital slides

### ***Schaffersiana* gen. nov.**

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Type species *Schaffersiana lobitornus* spec. nov.

**Description of the genus:** Male antennae short, scarcely ciliate, basal segment large and swollen, flagellum with a knot at one-third from base. Labial palpa slender. Forewings relatively long but normal shaped, hindwings at base with bristles along cubital vein. Hindwings relatively small and somewhat wrinkled, not so extreme as seen in males of *Lambulosia* and *Darantasia*. A distinct tornal lobe present which is retracted towards base. Fringes at hindwing rim very tight as also seen in males of *Lambulosia* and *Darantasia*.

Male genitalia with uncus finger-shaped, valvae slightly asymmetric with a strong dentate ampulla, vinculum with almost square saccus. Aedeagus rather long, apically split and carinal plate with teeth. Vesica with at least one field of needle-shaped cornuti and scobinated fields.

More detailed description below with the species.

**Distribution:** The only species known in this genus is found in the Jayawijaya Mountains in the Central Mountain Range of Papua, Indonesia.

**Etymology:** The genus is named in honour of Mr. Joop Schaffers who as photographer accompanied the Papua Insects Foundation during Papua expeditions in 2008 and 2011 and financed the important orientation visit to the Kumawa National Park in Southwest Papua. Many of his photographs of insects are used in the faunistic website papua-insects.nl.

### **Comparison with *Lambulosia* Hampson, 1914 and *Darantasia* Walker, 1859**

The habitus of *Schaffersiana* gen. nov. is at first sight rather similar to the allied *Lambulosia* and *Darantasia*. However, there are some distinct differences which distinguishes the new genus from the other two. The male antennae are in *Schaffersiana* short and have a knot in the flagellum, while in *Lambulosia* and *Darantasia* these are longer and without a knot. The forewings of the males of *Darantasia* and especially *Lambulosia* are extremely modified, rounded, arched and wrinkled, while in *Schaffersiana* these are apart from being rather long of normal shape. The hindwings of the males of *Darantasia* are distinctly smaller than the forewings and are strongly modified with numerous wrinkles and a concave termen, in *Lambulosia* the hindwings are smaller than forewings with wrinkles but not so strong as in *Darantasia*. In *Schaffersiana* the hindwings are slightly smaller than forewings but not so distinct as in *Lambulosia* and *Darantasia*, some wrinkles at the cubital and anal vein, but most distinguishing is the conspicuous tornal lobe which is not present in *Lambulosia* and *Darantasia*.

The genitalia of *Lambulosia*, *Darantasia* and *Schaffersiana* are quite different. Male genitalia with valvae of *Lambulosia* with cucullus and sacculus deeply divided into slender longitudinal parts, in *Darantasia* and *Schaffersiana* not divided. In *Schaffersiana* the harpe with a strong conspicuous ampulla and a broad saccus which both are absent in *Lambulosia* and *Darantasia*.

All different characters of the hereafter described species justify the designation of the new genus *Schaffersiana* to where it belongs.

***Schaffersiana lobitornus spec. nov.*** (figs 1-4)

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**Holotype:** ♂, RMNH.INS.1098957 (prep. RV1625), Indonesia, Irian Jaya, Pass Valley, 49 km N Wamena, 2140 m, at light, 25.x.1993, A.J. de Boer, A.L.M. Rutten & R. de Vos, [former] Collectie Zoölogisch Museum Amsterdam.

**Description:** Male forewing length 10.5 mm. Antennae short, base of antennae large and swollen, flagellum at one-third with a small knot resulting in a slight nod. Antennae pale yellow with especially at the knot with some black suffusion, slightly dentate and scarcely ciliate. Labial palpal short and slender, alternately yellow and black ringed. Head black with some yellow scaling behind the cranium. Thorax with patagia black, tegulae pale buff, rest of thorax mixed with brown and buff. Legs pale yellow, femur and tibia dorsally with black suffusion. Abdomen dorsally with ground colour black, basally with buff scaling and distal three segments with scattered buff scales. The basal three segments with violet iridescence. Forewing relatively long but of normal shape. Costa regularly arched, termen rounded, dorsum straight. Ground colour of forewing dark brown with some black scaling, no pattern. Hindwing relatively small compared to the forewing, triangular and somewhat wrinkled, especially at the cubital and anal vein. Apex rounded, termen slightly concave, at tornus extremely retracted with a distinct lobe which results in a short dorsum. Fringes all along the hindwing of equal length, short and tight. Hindwing at wingbase on the cubital vein with long black bristles. Ground colour of hindwing yellow, at wingbase and along dorsum black, tornus with a narrow black fringe line. Underside almost identical to upperside, forewing centrally with violet iridescence, hindwing with less blackish suffusion at base and dorsum. Female unknown.

**Male genitalia (figs 2-4):** [prep. RV1625] Uncus finger-shaped, in the middle slightly broadened, apex sharp with a tiny thorn. Tegumen broad, triangular. Vinculum rounded U-shaped with broad and almost square saccus. Juxta heart-shaped with caudally a short forked apex. Valvae both slightly different, especially at the apex of the extension of the cucullus. Valvae rather elongate, Cucullus rather simple without process, costa slightly arched. Harpe at base with a strong blunt triangular ampulla covered with small teeth, distally with a smaller sharp triangular process. Cucullus broadly based, gradually narrowing and extended into a distal process which is slightly different at both valvae. Right valva with

extension of cucullus at base of apex with a concave disc-shaped process and towards apex tapering to a slender and sharp distal part curved in dorsal direction. In the left valva the extension of the cucullus with a larger concave disc-shaped process and with a shorter and broader distal part of the extension which is ventrally curved, apex sharp. Aedeagus rather long and dorsally straight, broadly based and ventrally curved, distally gradually narrowing. Carinal plate at apex split into two ventral dentate ridges, each with a row of small sharp teeth. Apex of both halves blunt. Vesica with a small ventral diverticulum and two lobes. The distal lobe ventrally with a group of short needle-shaped cornuti in a field of scattered tiny teeth.

**Distribution:** The holotype of the species is found in Pass Valley, a village Northeast of the Baliem Valley in the Jayawijaya Mountains in the Central Mountain Range of Papua, Indonesia, at an altitude of 2140 meters. It is probably a rare and endemic species for the area. The habitat is characterized by an open mountain forest with shrubs and many Casuarina trees along the Bion River.

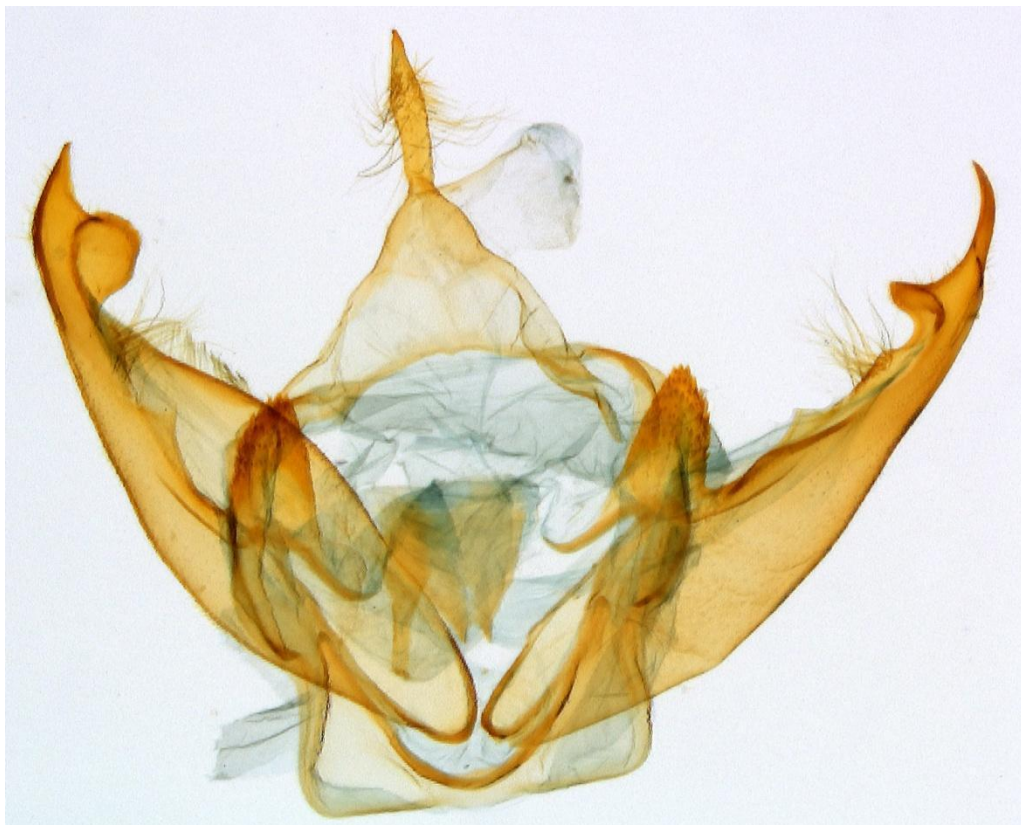
**Etymology:** The species name of *Schaffersiana lobitornus* refers to the conspicuous tornal lobe of the hindwing which is most characteristic for the species.

#### Acknowledgement

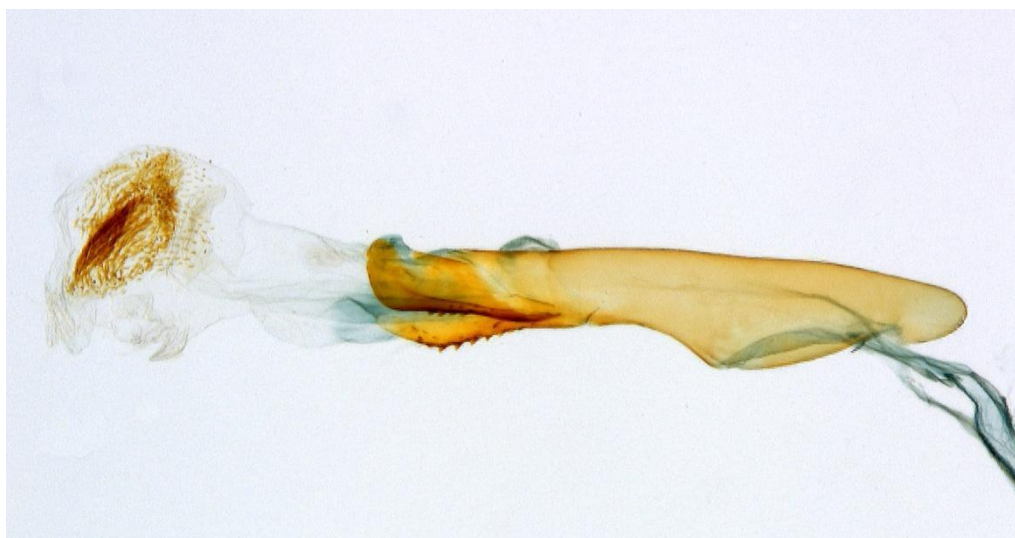
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**Fig. 1.** *Schaffersiana lobitornus* spec. nov., holotype ♂, Pass Valley, Jayawijaya Mts, Papua, Indonesia (RMNH)



**Fig. 2.** *Schaffersiana lobitornus* spec. nov., ♂ genital armature (prep. RV1625)



**Fig. 3.** *Schaffersiana lobitornus* spec. nov., aedeagus (prep. RV1625)



**Fig. 4.** *Schaffersiana lobitornus* **spec. nov.**, detail of carinal plate and vesica with cornuti (prep. RV1625)