

The female of *Lambula vanrossemi* De Vos, 2019 from New Guinea discovered (Lepidoptera: Erebidae, Arctiinae, Lithosiini)

Rob de Vos

Naturalis Biodiversity Center, Darwinweg 2, 2333 CR Leiden, The Netherlands
email: rob.devos@naturalis.nl

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Abstract: The female of the strongly sexual dimorph *Lambula vanrossemi* De Vos, 2019 has been discovered and is described. The genitalia and variation in pattern of the adults is figured.

Rangkuman: Ditemukan dan dideskripsi betina dari *Lambula vanrossemi* De Vos, 2019 yang sangat berbeda atau dimorfik secara seksual. Digambarkan alat kelamin atau genitalia dan variasi pola dari hewan dewasa. [translation by Daawia Suhartawan]

Key words: female, first description, *Lambula vanrossemi*, Arfak Mountains.

Introduction

The remarkable *Lambula vanrossemi* De Vos, 2019 was described after males only. The species seems rather common given the fact that at one locality and the same date 21 males were collected at light. However, females couldn't be matched at that moment.

During a search through material from the same collection event for a publication of certain whitish Lithosiini species 33 female specimens of an unknown species were found that at first couldn't be placed. A study of the genitalia revealed that it concerns a *Lambula* species and it was this fact and the number of the specimens that finally did ring a bell, moreover, the yellow-orange thorax (which is quite variable in colour) confirmed that it must be the female of the apparently strongly sexual dimorph recently described *Lambula vanrossemi* De Vos, 2019 which also has this yellow-orange thorax. Male and female were not matched any sooner because they were separately stored and the remarkable difference in wing colour and pattern did not suggest that they belong together.

The male is shown here again and the female is described for the first time. Females were collected on the same locality of the male holotype and paratypes, Mokwam (1469-1510 meter), northern Arfak Mountains, Papua Barat, Indonesia, but also at the nearby village Demaisi (1637 meter). It seems a rather common species given the numbers that are found at a few collection events but the species probably has a local distribution and is endemic for the area, which makes it very vulnerable because the natural habitat is under high pressure from logging and destruction of the forest.

Abbreviations

Fwl – Forewing length (measured from wingbase to apex)

KSP – Koleksie Serangga Papua (Papua Insects Collection), Waena, Papua, Indonesia (former collection of Henk van Mastrigt)

RMNH – Collection of Naturalis Biodiversity Center, Leiden, The Netherlands (former Rijksmuseum voor Natuurlijke Historie)

RMNH.INS. – Acronym for unique collection numbers of specimens and slides in RMNH

Systematical part

The female of *Lambula vanrossemi* De Vos, 2019 (figs 2-5, 8-9)

Studied material (33 ♀♀): 17 ♀♀, RMNH.INS.1282818-1282819, 1282841-1282854, KSP-65143, Indonesia, Papua Barat, Birdshead Peninsula, Arfak Mountains, Mokwam, 1510 m, 1°06'S – 133°54'E, 6-10.xi.2011, at light, Papua Insects Foundation; 8 ♀♀, RMNH.INS.1282821, 1282855-1282860, KSP-65144, Indonesia, Papua Barat, Birdshead Peninsula, Arfak Mountains, Demaisi, 1637 m, 1°10'S – 133°53'E, 14.xi.2011, at light, Papua Insects Foundation; 8 ♀♀, RMNH.INS.1282820, 1282862-1282867, KSP-65145, Indonesia, Papua Barat, Birdshead Peninsula, Arfak Mountains, Mokwam, 1469 m, 1°06'S – 133°54'E, 21-23.x.2014, at light, Leg. P.J. Zumkehr & F. Groenen.

Description: ♀ Fwl. 9.3-10.8 mm. Labial palps very small and black. Antennae filiform with scarce ciliae, black, sometimes with some scattered white scales. Head, patagia and tegulae when fresh could be orange coloured but there is much variation in contrast. It can fade from dark yellow, ochre to bone-white, and even the head and tegulae can be much paler than the patagia. Meso- and metathorax white. Abdomen very dark brown to black, legs buff.

Forewings of female silky white with in strongly patterned specimens a black rim in the apex running out along distal half of costa and upper half of termen, fringes white. This feature is rather variable and the black rim may be stronger or, more commonly, reduce to a tiny narrow line. Hindwings black with pure white fringes. In some specimens the basal area is fading to whitish. Underside of forewing black but in most specimens with a marginal white streak just above the tornus. Hindwing at underside identical to upperside, black and in some specimens basally fading to white.

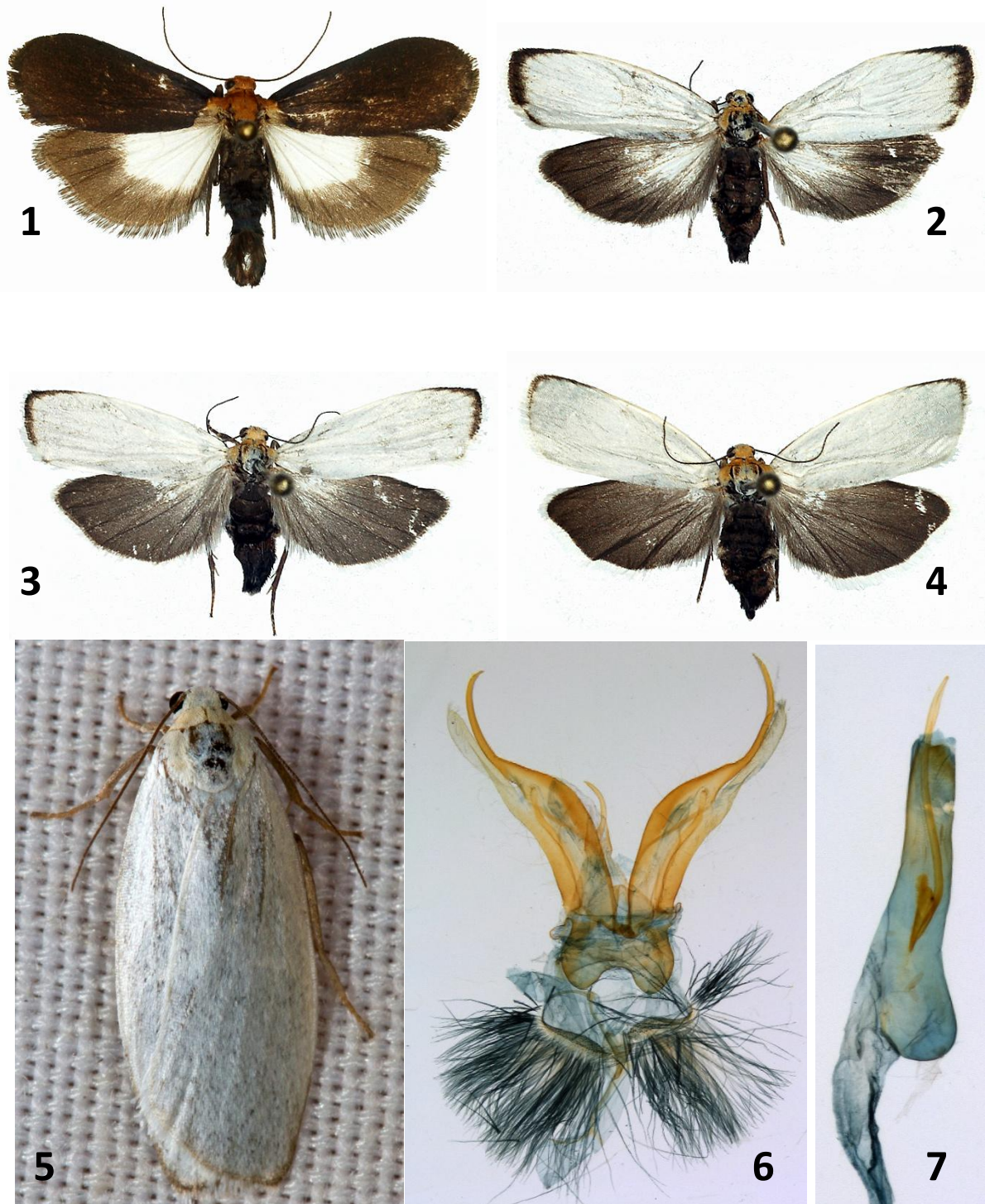
Female genitalia: [RMNH.INS.1282818] Antrum funnel-shaped, ovaria directly broadly connected to the antrum. Ductus bursae unsclerotized and long, cervix bursae slightly indicated by a broadening of the ductus at the bursa copulatrix, where between the ductus seminalis is connected at the right side. Bursa copulatrix elongate oval shaped with two large trumpet-shaped signa, the narrow side being curved and with a sharp apex.

Acknowledgement

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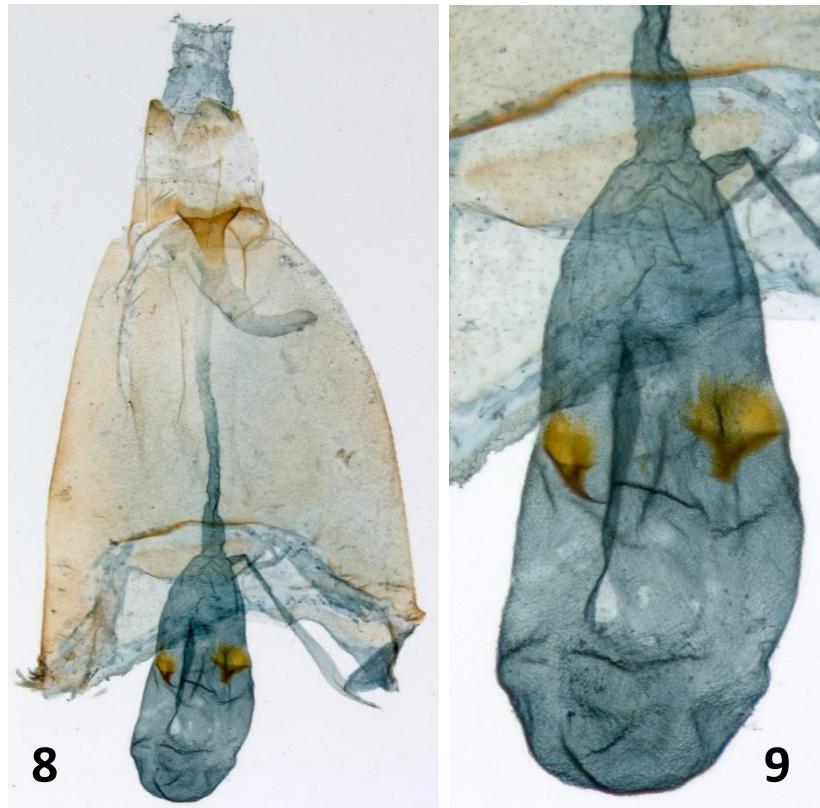
References

De Vos, R., 2019. The “underwing” *Lambula* species from New Guinea with twelve new species (Lepidoptera, Erebidae, Arctiinae, Lithosiini). *Suara Serangga Papua (SUGAPA digital)* 12(1): 57-89.



Figs 1-5. *Lambula vanrossemi* De Vos, 2019: **1.** Holotype ♂, Mokwam, Papua Barat, Indonesia, KSP-65132; **2.** ♀, Demaisi, Papua Barat, Indonesia, RMNH.INS.1282821; **3.** ♀, Mokwam, Papua Barat, Indonesia, RMNH.INS.1282820; **4.** ♀, Mokwam, Papua Barat, Indonesia, RMNH.INS.1282819; **5.** ♀, natural position, 9.xi.2011, Mokwam, Papua Barat, Indonesia, photo: Sandra Lamberts.

Figs 6-7. Male genitalia *Lambula vanrossemi*, RMNH-RV1666: **6.** genital armature; **7.** aedeagus.



Figs 8-9. Female genitalia *Lambula vanrossemi*, RMNH.INS.1282818: **8.** genital; **9.** bursa with two signa.