

Two new *Spilosoma* species from Indonesian New Guinea (Erebidae, Arctiinae, Arctiini)

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SUGAPA 7 (4): 107 - 113

Abstract: Two new species of the genus *Spilosoma* Butler, 1875 are described from Indonesian New Guinea: *Spilosoma wildi* **spec. nov.** and *S. withaari* **spec. nov.** The species are described and the moths and genitalia are figured.

Rangkuman: Dua spesies baru genus *Spilosoma* Butler, 1875 dipertelakan dari bagian barat New Guinea, Indonesia: *Spilosoma wildi* **spec. nov.** dan *S. withaari* **spec. nov.** Kedua spesies dideskripsi dan gambar-gambar ngengat dan genitalia disajikan.

Keywords: new species, *Spilosoma*, Papua, Indonesia.

Introduction

After the revision of the *Spilosoma* species from New Guinea by De Vos & Suhartawan (2011) two new species of this genus were discovered. During the survey of the Papua Insects Foundation in the Arfak Mountains in 2011 a new species was collected by Siep and Jannie Sinnema, *Spilosoma withaari* **spec. nov.** It belongs to the *styx* group of species. Another new species was discovered by Henk van Mestrigt and Mike Wild in the Snow Mountains in 2013, *Spilosoma wildi* **spec. nov.** It belongs to the *dinawa* group of species.

Abbreviations

- BMHN - Natural History Museum (former British Museum of Natural History), London, UK
Fwl. - Forewing length
KSP - Koleksi Serangga Papua (Collection Papua Insects), Jayapura, Papua, Indonesia
MZB - Museum Zoologicum Bogoriense, Cibinong, Java, Indonesia
RMNH - Naturalis Biodiversity Center, Leiden, The Netherlands.

Descriptions

Spilosoma wildi spec. nov.

(Figs 1-2, 5-7)

Holotype: ♂, [Indonesia], Prov. Papua, Kab. Puncak Jaya, Mokndoma, E 137°46' - S 3°38', 2180 m, 15-23.I.2013, leg. Family Wild & Henk van Mastrigt (KSP 65574) [MZB].

Paratypes: 34 ♂♂: 26 ♂♂, as holotype: 17 ♂♂ [KSP], 5 ♂♂ [RMNH], 4 ♂♂ [MZB]; 8 ♂♂, idem, but 5-6.II.2013, leg. Wild Family: 3 ♂♂ [KSP], 5 ♂♂ [BMNH].

Diagnosis:

A rather dark middle sized species with characteristic black double spots as seen also in *Spilosoma biagi* (Bethune-Baker, 1908) and *S. dinawa* (Bethune-Baker, 1904). The black pattern in *S. wildi* is however very modest. Carinal plate seems smooth but with four very shallow teeth which are hardly visible.

Description:

Fwl. 25-28 mm (holotype 25.8 mm). Head dorsally ochreous brown, ventrally black, with black labial palpaе and dark grey bipectinate antennae. Patagia and prothorax dorsally like head ochreous brown, tegulae and rest of thorax dorsally somewhat pinkish brown with distal tips of tegulae again ochreous brown. Prothorax ventrally rose-red, rest of thorax buff coloured. Abdomen buff coloured with dorsally and laterally a row of black dots.

Forewing with grey-brown ground colour. Four rather large black costal spots. Medial and antemedial transverse line chestnut brown to reddish brown with small double spots on each vein and at dorsum pronounced by larger spots. Postmedial and submarginal line with double spots on each vein. Ventral side of forewing centrally rose-red, costa, margin and dorsum dark buff coloured. Costal and submarginal spots prominent, broad postmedial line well developed with confluent black spots. Upperside of hindwing buff coloured with a blackish discal spot and an incomplete row of submarginal spots. Underside hindwing identical to upperside but more clearly defined.

There is some minor variation in the size and presence of the black dot pattern but in general the species is rather uniform in appearance.

Female unknown.

Genitalia:

[prep. KSP65574] The construction of the male genitalia prove that *Spilosoma wildi* belongs to the *dinawa* group of species. Uncus broadly beak-shaped with sharp apex. Long tegumen with a wide and rounded sclerotized membrane at the base

of the uncus. Juxta large squarish shield-shaped. Wide rounded saccus. Valva with costa of cucullus folded and with a lobe distally, the sacculus with a broadly based triangle-shaped process. Apical part of valve slightly curved inwards with a blunt finger-shaped apex. Aedeagus rather long and slightly curved with gradually widening distal part with a wide split. Carinal plate almost smoothly rimmed except for a row of four shallow teeth which are hardly visible. Vesica dorsally scobinated with a field of tiny cornutal spines, ventrally with a field of cornutal spines of similar size as the dorsal ones.

Distribution:

Until now only known from the type locality in the Central Mountains (Kab. Puncak Jaya), where it seems to be a common species.

Etymology:

The species is named in honour of Mike Wild and his family for their hospitality and fine cooperation during the visit of Henk van Mastrigt in the village Mokndoma, the type locality of this species.

Spilosoma withari spec. nov.

(Figs 3-4, 8-10)

Holotype: ♂, Indonesia, Papua Barat, Arfak Mts., Mokwam, 1°06' S - 133°54' E, 1510 m, Papua Insects Foundation Expedition 2011 [RMNH].

Diagnosis:

The black pattern of patches and stripes and the yellow hindwings is conspicuous. It somewhat resembles that of *Spilosoma artichroa* (Druce, 1909) but that species is much larger and has orange-red hindwings and the forewing pattern is different in arrangement of the patches.

Description:

Fwl. 17.4 mm. Head white with black labial palpaе and black bipectinate antennae. Patagia yellow with darker yellow distally and a black rim basally. Black tegulae edged with buff and yellow hairs, thorax buff and yellow with a broad black dorsal stripe. Thorax ventrally black except for the centre which is buff-yellow. Abdomen dark yellow with a dorsal row of black dots, laterally black and ventrally buff. Fore- and midlegs black, hindlegs dark grey.

Forewings upperside cream-white with black pattern almost filling up the whole forewing, crossed by the pale veins and subbasal, antemedial and marginal transverse lines. Underside of forewings with identical black pattern but less sharp, ground colour in the basal two-third buff-yellow.

Hindwings pale yellow with the cell filled with black and a complete row of black submarginal dots and patches of different size and some black apical dots. Underside identical to upperside.

Female unknown.

Genitalia:

[prep. RV1348] The species belongs to the *styx* group and according to the wing pattern and genitalia it seems more allied to *Spilosoma reticulata* Rothschild, 1933 than *S. styx* (Bethune-Baker, 1910). Uncus beak-shaped with a truncate apex. Tegumen long, longer than valvae. Vinculum wide with rounded "V"-shaped saccus. Juxta like in *S. reticulata* with caudal part (near vinculum) broadly shield-shaped, the distal part (near transtilla) a "V"-shaped construction. Valvae short and narrow based and bilobed with an apical process on the cucullus which is thumb-shaped with broader and rounded apex. Sacculus distally with a prominent broad apical lobe. Aedeagus straight with a broadening distal part and a wide split next to the carinal plate. Carinal plate with a squarish tooth and smaller conical thorns. Vesica dorsally and ventrally with scobinated fields with small cor-nutal spines.

Distribution:

So far only known by the male holotype which has been collected in Mokwam in the northern Arfak Mountains.

Etymology:

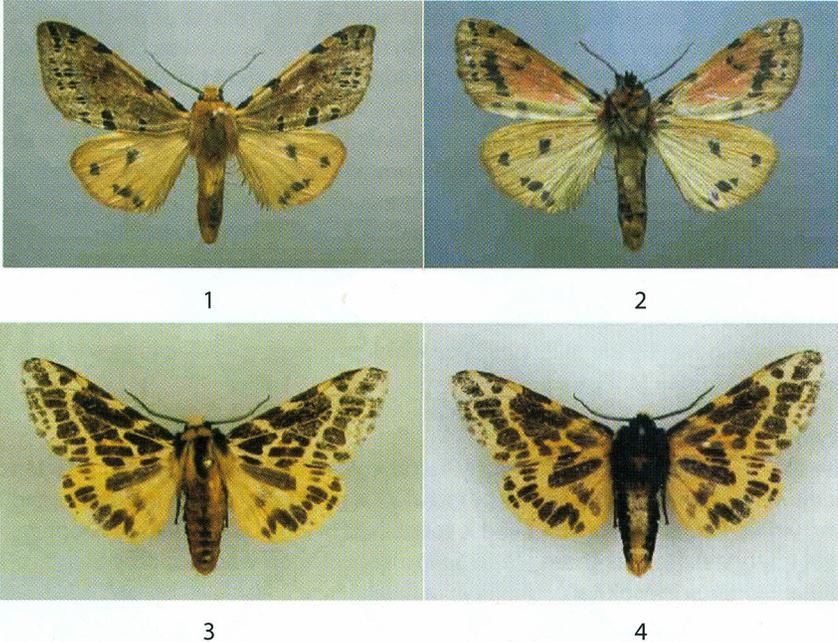
The species is named in honour of my friend, colleague and travelling companion Gerrit Withaar, treasurer and one of the founders of the Papua Insects Foundation, and who visited Papua several times and is specialized in longhorn beetles (Coleoptera, Cerambycidae). He was there when *Spilosoma withaari* was found by Siep and Jannie Sinnema in Mokwam.

Acknowledgement

I am grateful to Kees van den Berg (RMNH) for his help with the digital photographs of the genitalia. I want to thank Henk van Maastrigt and Mike Wild with his family for the opportunity to describe the new species from Mokndoma. Thanks to digital images and sending the abdomina for dissection by mail recent collected material can be investigated very fast.

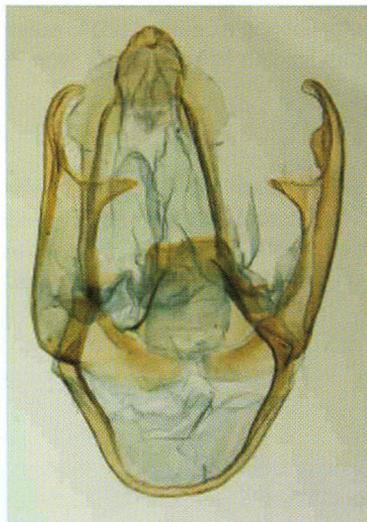
Literature

Vos, R. de & D. Suhartawan, 2011. The *Spilosoma* group of species from New Guinea and adjacent islands (Lepidoptera: Erebidae, Arctiinae, Arctiini). In: Telnov, D., 2011. Biodiversity, *Biogeography and Nature Conservation in Wallacea and New Guinea*, Vol. I: 299-333.

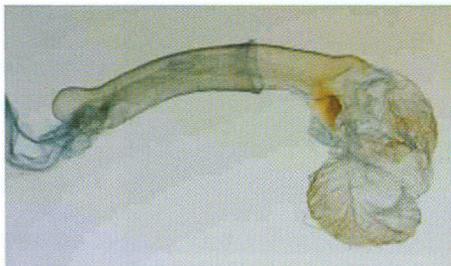


Figs 1-2. *Spilosoma wildi* **spec. nov.** ♂, Moknduma, Central Mountains (KSP):
1. upperside; 2. underside.

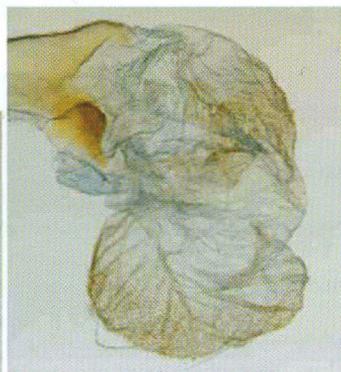
Figs 3-4. *Spilosoma withaari* **spec. nov.** ♂, Mokwam, Arfak Mountains (RMNH):
3. upperside; 4. underside.



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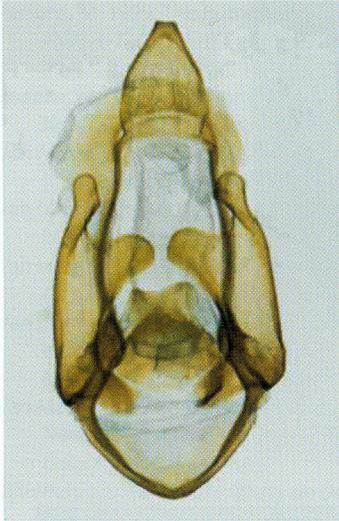


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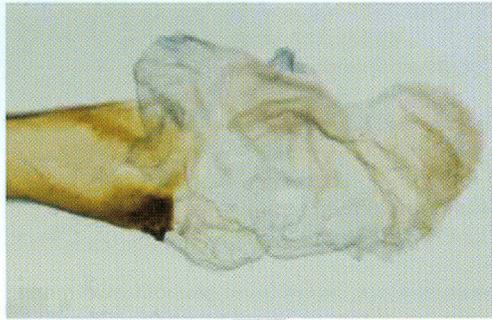


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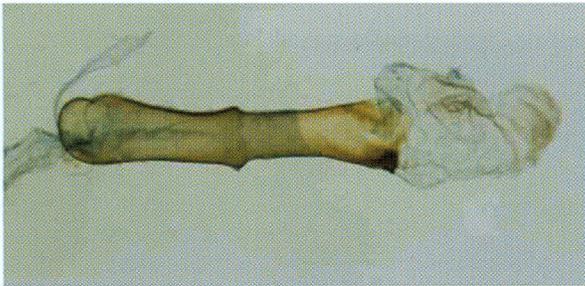
Figs 5-7. ♂ genitalia *Spilosoma wildi* **spec. nov.** (prep. KSP65574): 5. habitus; 6. aedeagus; 7. carinal plate and vesica.



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Figs 8-10. ♂ genitalia *Spilosoma withaari* **spec. nov.** (prep. RV1348): 8. habitus; 9. aedeagus; 10. carinal plate and vesica.