

A new *Damias* species from Biak Island (Lepidoptera: Arctiidae, Lithosiinae)

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Abstract. A new species, *Damias biakensis* spec. nov., is found on the Island of Biak (Papua, Indonesia). The species is described and compared with related species from New Guinea. Adults and female genitalia of the treated species are depicted.

Ikhtisar. Suatu spesies baru, *Damias biakensis* spec. nov., ditemukan di Pulau Biak (Papua, Indonesia). Spesies dideskripsi dan dibandingkan dengan dua spesies dekat dari New Guinea. Gambar dari imago dan dari genitalia betina spesies tersebut disajikan.

Key words: Papua, Indonesia, spec. nov.

Abbreviations

Fwl. - Forewing length
BMNH - Natural History Museum, London, United Kingdom
ZMAN - Zoölogical Museum of Amsterdam, The Netherlands

Introduction

The genus *Damias* Boisduval, 1832 comprises many species in the oriental and Australian fauna region. Today 32 described species are known from New Guinea and adjacent islands and still some more are awaiting to be described. Little is known about their biology, apart from the fact that most species are partly day flying and also come to light, but less frequent.

The genus can externally be divided into two colour groups, a larger species group with in general black, brown and white wing pattern, and a smaller species group

with black, brown and yellow pattern. Some species are very difficult to distinguish from each other and even from the many mimics in other lithosiine genera or Lepidoptera families like in Pyralidae, Tortricidae and Tineidae.

The second author discovered during an entomological survey on Biak Island a new species of the yellow patterned group. Study of the genitalia revealed that it is closely related to *Damias simillima* (Rothschild, 1936), and in lesser extend also to *D. calida* (Walker, [1865]).

Damias biakensis spec. nov.

Figs 1, 4-6

Holotype: ♀, INDONESIA, Papua, Pulau Biak, Kota Biak surroundings, 13.xii.2007, J. Hyvärinen leg. [ZMAN].

Diagnosis: Forewing with extended yellow pattern, the brown marginal band on the forewing reduced to an apical part. Hindwing with normal marginal band but with brown colour dominating.

Description: Female (male unknown), fwl. 11 mm. Labial palps slender and black, head and thorax black with a dark green metallic shine. Patagia yellow, tegulae for the greater part as thorax but with the caudal part yellow. Legs brown, midtibia with two white bands, hindtibia with one white band. Abdomen black with a white tuft on the last segment.

Forewings yellow with a small black-greenish metallic shining basal field. Apical part brown with narrow blackish rim which continues along the termen to tornus. Hindwing with basal half yellow, outer half with apical half brown, dorsal half black. Dorsum of hindwing black.

Underside of forewing with basal half yellow and outer half orange-brown and with black fringes. Underside of hindwing as upperside.

Female genitalia: Last sternite very broad having two large incavations which carry thick bunches of dense hairs (in genital preparation brushed away) (fig. 4). Genital plate (lamella postvaginalis) with three horizontal pledges (fig. 5). Antrum sclerotized, broad and slightly longitudinally wrinkled with granulated surface. No clearly defined ductus bursae, cervix bursae short and broad, directly transitioned to bursa copulatrix. Bursa copulatrix irregular shaped and divided into three lobes, the two smaller basal lobes each with a bunch of numerous signa needles (fig. 6). The distal and larger lobe irregular shaped with a distal trunk-shaped extension ending in the ductus seminalis.

Etymology: The species is named after the Island of Biak, the origin of the holotype.

Similar species

The two most similar and apparently closely related species of *Damias biakensis* spec. nov. are *D. simillima* and *D. calida*, both from the mainland of New Guinea. *Damias simillima* (fig. 2) has more than half of the fore- and hindwing covered with a marginal band of brown with a black rim. The black rim is irregular, especially on the forewing. In *Damias calida* (fig. 3) about half of the forewing is covered by the brown black-edged marginal band with a smoothly curved black rim. On the hindwing the margin is much more narrow than in *simillima* and *biakensis*, for the greater part black, only some brown in the apical area.

The female genitalia of *simillima* and *calida* are here described in order to compare the three species.

Female genitalia of *Damias simillima*: Sternite as in *biakensis* (fig. 7). Genital plate wrinkled with numerous shallow horizontal pledges (fig. 8). Antrum sclerotized with short, broad and constricted plate. No ductus bursae defined, broad and swollen cervix bursae with on transition with bursa copulatrix two bunches of signa needles (fig. 9), shorter and less numerous than in *biakensis*. The distal part of the bursa copulatrix without signa and regular shaped, almost globular. Ductus seminalis originating ventrally from the middle of this part of the bursa.

Female genitalia of *Damias calida*: Sternite much broader than in both other species (fig. 10). Genital plate with two horizontal sharp pledges (fig. 11). Antrum only slightly sclerotized, hardly visible. No ductus bursae defined, cervix bursae wrinkled, rather narrow. Bursa copulatrix more or less globular but at base more narrow. In this narrow part and the basal half of the globular part covered with several crests of numerous long signa needles (fig. 12). Distal half of the globular bursa without signa, at the very end with the ductus seminalis originating.

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Literature

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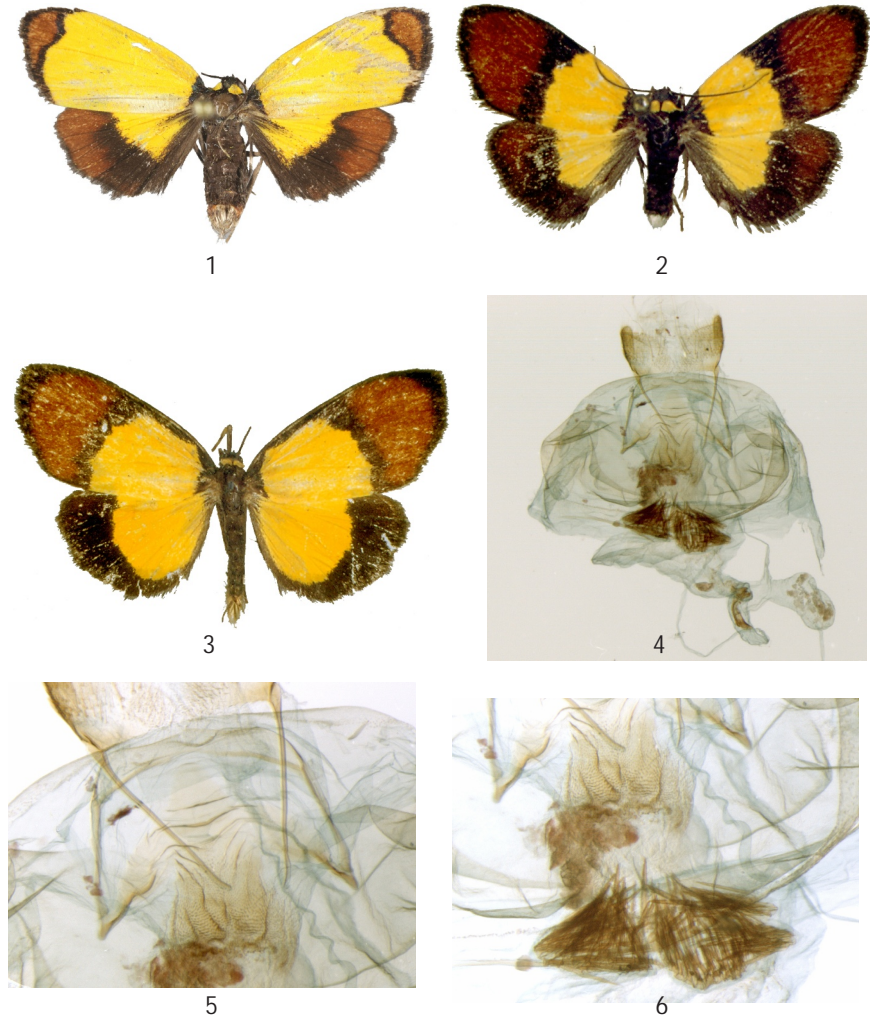


Fig. 1. *Damias biakensis* spec. nov., holotype ♀ (Biak Island, ZMAN).

Fig. 2. *Damias simillima* (Rothschild, 1936), holotype ♀ (Setekwa River, BMNH).

Fig. 3. *Damias calida* (Walker, [1865]), ♂ (Fakfak, BMNH).

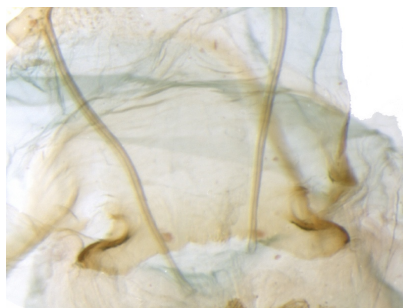
Figs 4-6. Female genitalia of *Damias biakensis* (prep. RV 1278):

4. Habitus complete female genitalia; 5. Genital plate (lamella postvaginalis);

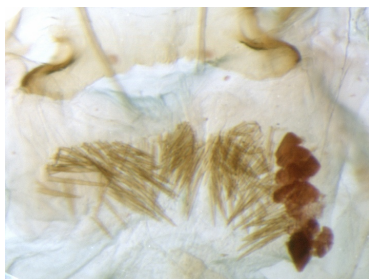
6. Bursa copulatrix with signa needles.



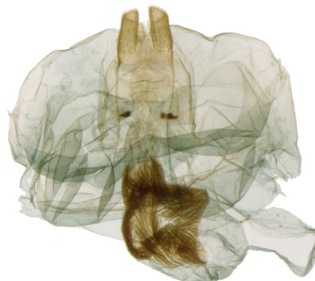
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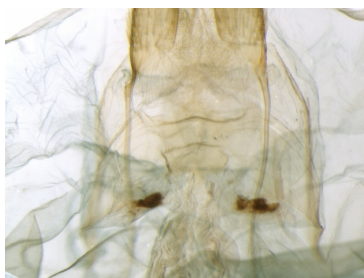
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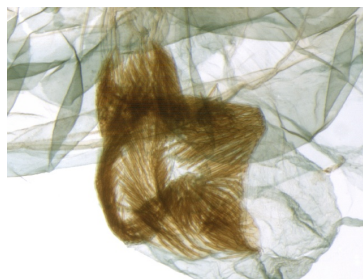
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Figs 7-9. Female genitalia of *Damias simillima* (prep. RV 1279): 7. Habitus complete female genitalia; 8. Genital plate (lamella postvaginalis); 9. Bursa copulatrix with signa needles.

Figs 10-12. Female genitalia of *Damias calida* (prep. RV 1280): 10. Habitus complete female genitalia; 11. Genital plate (lamella postvaginalis); 12. Bursa copulatrix with signa needles.