



A new species of *Cyana* Walker, 1854 from Uganda (Lepidoptera: Erebidae: Arctiinae)

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Abstract: A new species of the genus *Cyana* Walker, 1854 collected in Mpanga Forest (Uganda) is described as *Cyana yaseminae* sp. nov. and compared with the similar *Cyana quentini* Karisch, 2003.

Key words: Lepidoptera, Erebidae, Arctiinae, *Cyana*, new species, Uganda.

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INTRODUCTION

During the Second Afrotropical Lepidoptera Workshop held at Kibale and Mpanga Forest in Western and Central Uganda the authors and Klaus-Rüdiger Beck, Demitz-Thumitz/ Germany, found several small specimens of the genus *Cyana* (Walker, 1854). After setting them and making dissections we tried to identify the specimens with the help of the latest revision of the genus by Karisch (2013). For one group of specimens we were not able to obtain a clear result. These specimens are similar to *Cyana quentini* Karisch, 2003, but when the series was compared with specimens of *C. quentini*, we were able to detect several differences, and therefore we feel justified in describing them as a species new to science.

METHODS AND MATERIALS

The material we studied, including the type material, comes from the following collections:

BMNH: Natural History Museum, London, UK

CTBH: Collection of Thomas Baron, Hamburg, Germany

CBDT: Collection of Klaus-Rüdiger Beck, Demitz-Thumitz, Germany, later in Senckenberg Museum für Tierkunde, Dresden

CKDT: Collection of Timm Karisch, Demitz-Thumitz, Germany

MNVD: Museum für Naturkunde und Vorgeschichte Dessau, Germany.

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DESCRIPTION

Cyana yaseminae Baron & Karisch sp. nov.

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Holotype ♂: Uganda, Mpanga Forest, Ecotourism Camp site, ca. 3 km SW Mpigi, Regenwald. 0°12' 26.8"N, 32°18' 3.3"E, 1200 m. 27.x.2014 LF, leg. K.-R. Beck. Gen.–Prep. 3305 prep. Karisch, 2015. In CBDT.

Paratypes:

Uganda, same locality as holotype, 3 ♂♂ (1 ♂ gen. slide 100, Baron; 1 ♂ gen. slide 3300, Karisch) 26.x.2014, leg. Baron (CTBH), leg. Karisch (CKDT), leg. Beck (CBDT); Jinja, Mabira Forest 1 ♂ (gen. slide 2260, Karisch) x.1962 leg. R. H. Carcasson (BMNH).

Description (Figs 3–4)

Male: Wingspan: 18–19 mm ($n = 5$).

Forewing upper side: white with red fasciae; antemedian fascia more or less straight, consisting of three dots; post median fascia curved outward between costa and M_3 , then straight to dorsum, often interrupted; margin between apex and CuA_2 with triangular red spots between the veins; black basal spot; two distinct, black discal spots, the outer one adjacent to the inner margin. Fringes white.

Underside: white with broad orange margin having extensive dark brown suffusion between base and lobus; lobus small, round, orange with blackish brown suffusion.

Hind wing white on both sides without pattern. Fringes white.

Female: Unknown.

Genitalia ♂ (Figs 7–8):

Tegumen rather slender; uncus long, slender and

conical; valva broad, costa arched medially; cucullus moderately long but narrow, at the tip only short and rounded; sacculus rather broad; processus strongly sclerotized, long, strongly curved inwards; juxta on both sides with delicate thorns on a dorso-ventrally arched, hemispherical bulges; between these bulges well sclerotized. Aedeagus very short and broad; vesica with slightly sclerotized fields and areas of minute teeth; tube at one side with a stronger sclerotization.

Diagnosis:

Cyana yaseminae sp. nov. is similar to *C. quentini* (Figs 1–2). In general adults of *C. yaseminae* are larger than *C. quentini* (six examined specimens). Furthermore, in *C. quentini* the discal spots are parallel to the inner margin of the forewing, while in *C. yaseminae* sp. nov. the outer discal spot is closer to the dorsum. On the underside, the costa from base to lobus is dark orange with strong black suffusion in *C. yaseminae* sp. nov.; whereas in *C. quentini* it is light orange. The first pair of legs in *C. yaseminae* sp. nov. are deep orange, often with blackish-brown intermixed; whereas in *C. quentini* they are pale orange.

In the male genitalia the uncus of *C. yaseminae* sp. nov. is more slender than in *C. quentini* (Figs 5–6). In *C. quentini* the sclerotization of the sacculus is narrowed at the base of the process, whereas in *C. yaseminae* sp. nov. the sclerotization of the sacculus has the same width from base to the process. The process of *C. yaseminae* sp. nov. is more strongly bent and more heavily sclerotized than in *C. quentini*. The margin of the juxta between the hemispherical bulges is also more strongly sclerotized and broader in *C. yaseminae* sp. nov., whereas in *C. quentini* it is membranous and narrower. The saccus in *C. quentini* is more triangular and slightly rounded, in *C. yaseminae* sp. nov. rectangular. The tube of the aedeagus is slightly narrower in *C. yaseminae* sp. nov. than in *C. quentini*, and the distal sclerotization is stronger.

Etymology: This new species is named after the daughter of the first author – Yasemin.

Distribution and habits

The record from Mabira (Jinja, Mabira Forest, gen. slide 2260, Karisch) X.1962, R. H. Carcasson (BMNH), as mentioned under *C. quentini* in Karisch (2013), has to be allocated to the new species. Our specimens were detected in Mpanga Forest, an isolated secondary rain forest in densely populated areas, which although disturbed has still retained a high diversity of Lepidoptera species. The most common tree species are: Cannabaceae – *Celtis gomphophylla* Baker, *C. mildbraedii* Engl., *C. zenkeri* Engl., Meliaceae – *Trichilia prieuriana* A. Juss., Moraceae – *Antiaris toxicaria* Lesch., *Morus mesozygia* Stapf, *Trilepisium madagascariense* DC., Sapotaceae – *Mimusops bagshawei* S. Moore, *Pouteria altissima* (A. Chev.)

Baehni but at least 205 different tree and shrub species occur (Bahati & Mwangi, 1999; Davenport *et al.*, 1996).

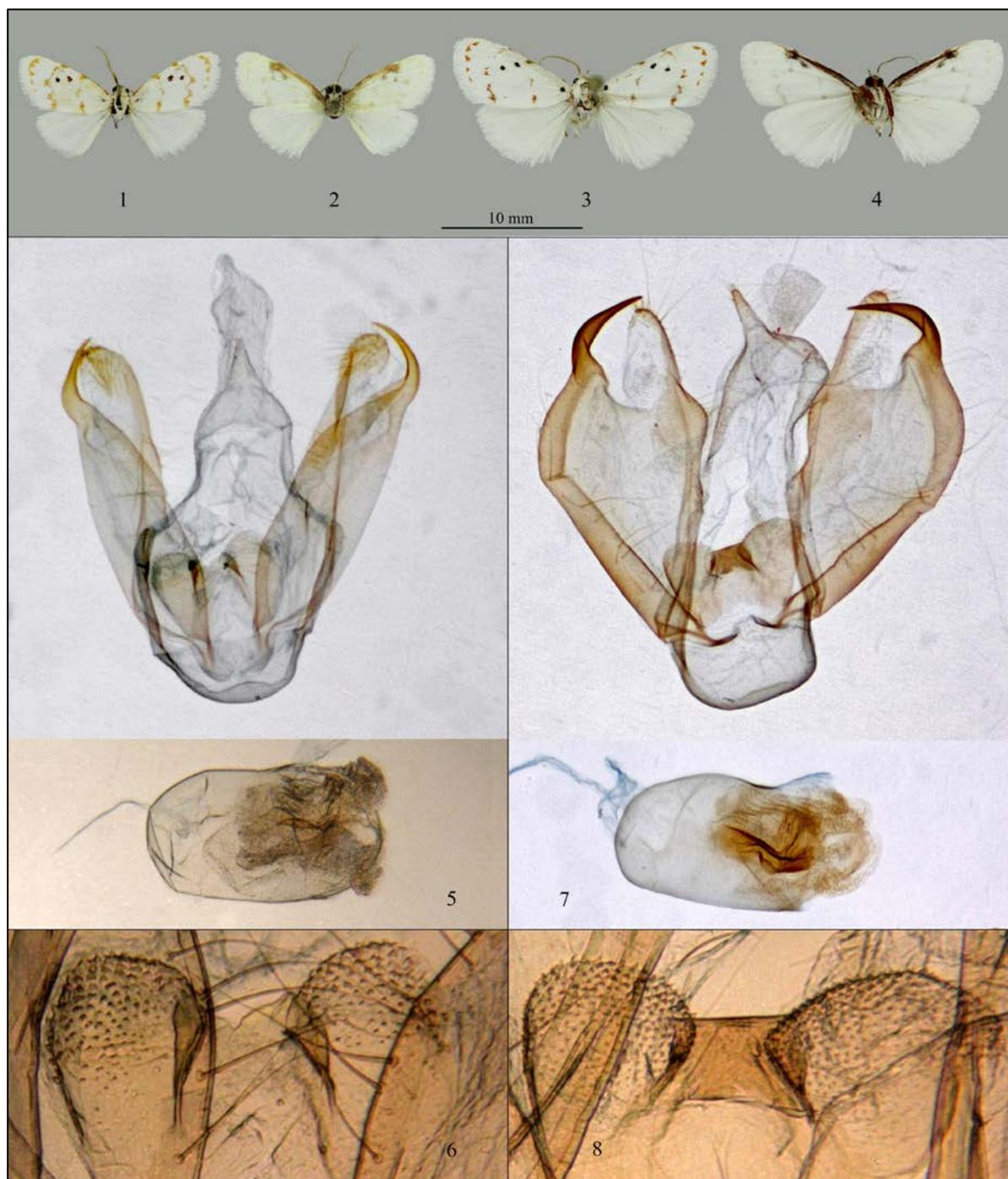
Both Mpanga Forest, south-west of Kampala and Mabira Forest, east of Kampala in Uganda, are at a similar altitude and in an area climatically influenced by Lake Victoria. The annual precipitation of 1500 mm is comparatively low for rain forests, and therefore these forests are more or less intermediate between mixed moist semi-evergreen and peripheral semi-evergreen Guineo-Congolian rain forests (Bush *et al.*, 2011). All current records of *C. quentini* are from much further to the West in Central Africa.

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PLATE

Figures 1–2. ♂ *Cyana quentini* (1 recto, 2 verso); **Figures 3–4.** ♂ *Cyana yaseminae* sp. nov. (3 recto, 4 verso); **Figures 5–6.** *Cyana quentini* ♂-genitalia (slide 1707, Karisch) (5 valva and aedeagus; 6 detail of juxta bulges); **Figures 7–8.** *Cyana yaseminae* sp. nov. (slide 3300, Karisch) (7 valva and aedeagus; 8 detail of juxta bulges).