

A new species of *Thaumaina* (Lepidoptera, Lycaenidae) from the Star Mountains and Jayawijaya Mountains in eastern Papua (Indonesia)

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Abstract: A new species of *Thaumaina* is described from the Western Central Mountain Range (Star Mountains and Jayawijaya Mountains) in eastern Papua, Indonesia, *Thaumaina aquamarina* **spec. nov.** The species is compared with the similar *Thaumaina uranotauma deliciosa* Wind & Clench, 1945 from eastern Papua New Guinea. Adults and genitalia of the new species are depicted.

Rangkuman: Deskripsi spesies baru dari *Thaumaina* yang berasal dari bagian barat Pegunungan Bintang dan Pegunungan Jayawijaya yang terletak di bagian timur Papua, Indonesia, *Thaumaina aquamarina* **spec. nov.** Spesies ini dibandingkan dengan *Thaumaina uranotauma deliciosa* Wind & Clench, 1945 yang berasal dari sebelah timur Papua New Guinea. Tahap dewasa dan alat kelamin digambarkan secara terperinci.

Keywords: Polyommata, Jayawijaya Mountains, Papua New Guinea

Introduction

Thaumaina Bethune-Baker (1908: 116) is based on the description of its type species *Thaumaina uranotauma* from the Angabunga River in “British New Guinea”, located in the Central Province, Papua New Guinea. As *T. uranotauma* was the only known member of the genus it has long been regarded as monotypic.

In his description of the genus, Bethune-Baker placed great emphasis on the “neuration” observed in *Thaumaina* but did not include any discussion dealing with related genera, and accordingly the systematic position remained unresolved. Eliot (1973: 444) placed the genus in his *Theclinestes* section, but later Hirowatari (1992: 38), accepting the view of Sibatani & Grund (1978: 2), included *Thaumaina* in an independent section of its own, stating that its systematic position remains unclear. Without any doubt, it is difficult to assign the species to any known section (*sensu* Eliot) of Oriental Lycaenidae and Bethune-Baker certainly did not use the name *uranotauma* accidentally. There is a close resemblance to species of the Afrotropical genus *Uranotauma* Butler, 1895 which is also placed in a section of its own (Eliot, 1973). Externally, adults of the new *Thaumaina* described herein also bear some resemblance to *Upolampes* Bethune-Baker, 1908 which differs largely in the structure of male genitalia (Eliot, 1973: 81).

Thaumaina is an endemic highland genus, so far known to occur only in the Central Cordillera of Eastern Papua New Guinea ranging from the Central to West Sepik Province (Parsons: 1989: 443). Parsons lists *T. uranotauma* as also occurring in Papua but did not give any specific localities, so this remains questionable. There are no specimens of *T.*

uranothauma in the KSP collection and most of the known records are from the SE part of PNG. The nominate subspecies is known from the Angabunga River area south of the Cordillera, while *ssp. deliciosa* Wind & Clench, 1945 occurs north of the Owen Stanley Mountains (Figs 7-9; MCZ/© 2010). Previous records of *deliciosa* collected during the expedition of Eichhorn to the Herzog Mountains were placed by Jordan (1930: 60, pl. 3 fig. 10) with *T. uranothauma*.

Abbreviation used

KSP - Koleksi Serangga Papua (former private collection of Henk van Mastrigt), Universitas Cenderawasih, Waena, Papua, Indonesia.

Thaumaina aquamarina spec. nov. (Figs 1-6)

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Holotype: ♂, [Indonesia, Papua], Star Mountains, Pegunungan Bintang, Kec. Okbibab, Batimban, Sabin, R. Mong, 25.vi.1999 [KSP 12360].

Paratypes: (5 ♂♂): 1 ♂, [Indonesia, Papua], Batimban, R. Okkim, 31.vii.1990 [KSP 12358]; 1 ♂, [Indonesia, Papua], Pegunungan Bintang, Batimban, R. Okkim, 1.vi.1992 [KSP 12357]; 1 ♂, [Indonesia, Papua], Irian Jaya, Peg. Bintang, Kec. Okbibab, Batimban, R. Okkim, 18.vi.1998 [KSP 12361]; 1 ♂, [Indonesia] Prov. Papua, Peg. Bintang, Batimban, Mu River, 12.vii.2002 [KSP 12359, dissected, Figs 5-6]; 1 ♂, [Indonesia, Papua], Irian Jaya, Jayawijaya (Central) Mountains, Fi. Nipsan, 1.820m, River Yango, E 139°38' S 4°07', 30.v. - 4.vi.2000 [KSP 12356]. All leg. H. van Mastrigt.

Description: Male forewing length 11-12 mm, wing upperside a pale, shining lilac with a dark brown border of about 1 mm in width, just slightly narrowing towards forewing apex. Hindwing spaces 6 and 7 bluish-grey. Hindwing inner cilia whitish. Outer wing margins hirsute and fringes boldly chequered. An inconspicuously tufted tail at vein 2. Underside white, with an irregular, reticulate pattern of spots and bands, reminding distantly of the genus *Upolampes*. Forewing with three brown bands: a sub-basal and a median band (including the cell end spot), each turning to the base of the wing and joining in space 1b. The post-discal band is composed of rounded to elongated spots, forming a gentle curve. The spot in space 1b shifted in basad. Hindwing with an irregular arrangement of brown spots, loosely forming irregular, catenulate bands. All wings with a complete series of sub-marginal lunules and fringes chequered with black and white. In its upper half, the lunule in space 2 is filled with black scales, arranged in the shape of an upside-down half-moon, including a narrow band of white scales at its top.

The female is unknown.

Male genitalia: Structure is similar to *T. uranothauma*, in having a broad vinculum ring and a basally dilated phallus (Eliot, 1973: 444, fig. 92), tapering towards a point. Lobes of the uncus are beak-like in lateral view and brachia of the gnathos are strongly reduced. At their dorsal end they are extending to a square-like structure reminding of a candle-holder (Figs 5-6).

Distribution: Only known from the type series collected in the Star Mountains and Jayawijaya Mountains in eastern Papua, Indonesia. One paratype specimen bears a label stating the altitude of the collecting locality "Nipsan" as 1.820 metres.

Etymology: The name *aquamarina* relates to the light blue colour of the wing upperside.

Discussion

Based on adult phenotype as well as male genitalia the new species is assigned to *Thaumaina* and its peculiar underside markings are strongly reminiscent of *T. uranotauma* (Parsons, 1989: pl. 69, figs 1997/1998). It differs from this species in having the upperside margins much narrower on both fore- and hindwings. Scales in hindwing space 7 of *T. uranotauma* are pure white and very prominent. On the underside of the forewing, *T. uranotauma* has only one incomplete post-discal band reaching from space 2 to the costa and one sub-basal band. The post-discal band is complete in *aquamarina*, with the additional spot in space 1b shifted in basad. The complete median band of *aquamarina* is reduced to a short triangle shaped indentation at mid costa in *uranotauma*, so the forewing underside appears largely white.

The hindwing pattern closely resembles the one known from *uranotauma*, but the spots in the lower part of the wing are not completely filled with black and there are again three irregular bands instead of two in *uranotauma*. In addition, marginal lunules are much better developed.

Genitalia differ mainly concerning the shape of the valva, which are not broadened at their base as in *uranotauma* (giving them a “chicken-drumstick” shape), but are rather slim basally.

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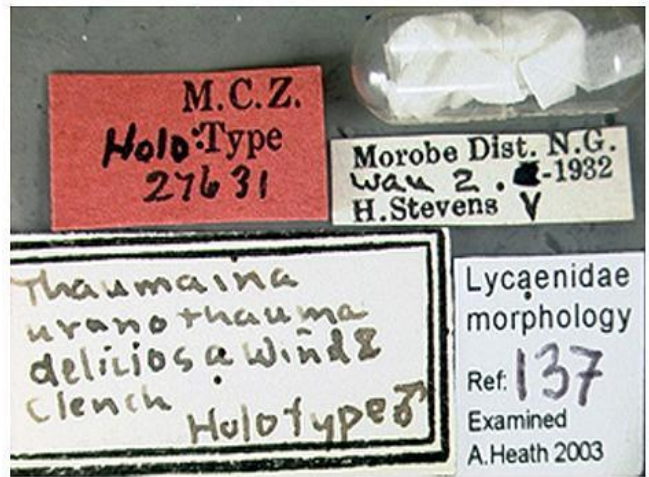
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Fig. 1-6. Adults and male genitalia of *Thaumaina aquamarina* spec. nov.

Fig. 1. Holotype, KSP12360, upperside; **Fig. 2.** Holotype, KSP12360, underside; **Fig. 3.** Paratype, KSP12361, upperside; **Fig. 4.** Paratype, KSP12361, underside; **Fig. 5.** Paratype, KSP12359, male genitalia in lateral view; **Fig. 6.** Paratype, KSP12359, male genitalia in dorsal view.



Figs 7-9. Holotype and labels of *Thaumaina uranotauma deliciosa* Wind & Clench, 1945. **Fig. 7.** Holotype, upperside; **Fig. 8.** Holotype, underside; **Fig. 9.** Type labels.