

Description of the female of *Delias flavissima* Orr & Sibatani, 1985 (Lepidoptera: Pieridae, Pierinae)

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Abstract: 40 years after the discovery of *Delias flavissima*, described from male specimens only, the first females of this species have been described in this article.

Rangkuman: Empat puluh tahun setelah penemuan *Delias flavissima* yang dideskripsi hanya dari specimen jantan, betina pertama telah dideskripsi melalui artikel ini.

Keywords : New Guinea, *aroe* sub-group, *cuningputi* group

Introduction

Delias flavissima was described by Orr & Sibatani in 1985 from populations in the Western Highland Province of Papua New Guinea. Only males had been found for the description. For nearly 40 years, no females had been found until a recent discovery, done by Nicolas Grimaldi in Gumine district (Chimbu Province, Papua New Guinea).

Abbreviations used

KSP – Koleksi Serangga Papua, Universitas Cenderawasih, Waena, Indonesia

Systematic part

Description of female of *Delias flavissima* Or & Sibatani, 1985

1 ♀, Gumine district, Chimbu Province, Papua New Guinea, coll. Nicolas Grimaldi.

Female slightly smaller than male with forewing 23-26 mm.

Upperside forewing: Same lemon yellow colour as in males, but slightly paler, forewing with black apical area extending also into discal cell. Four subapical yellow spots. Hindwing with a broader black marginal band than in males, also broken into spots towards tornus.

Underside: forewing basally yellow with inner two-thirds of discal cell black; hindwing with a broader median crenulate band than males. The female patterns are close to those of males and can't be mistaken with other females of the *aroae* sub-group.



♂ Gumine

Fig. 1. Male of *Delias flavissima*.



♀ Gumine

Fig. 2. Female of *Delias flavissima*.

Distribution

The distribution of *Delias flavissima* is, as far as we know, restricted to the central mountains of Papua New Guinea. Known localities are Wapenamanda, Pap Creek (Western Highland Province), Kerowagi and Gumine (Chimbu Province). (coll. KSP, Pequin, Grimaldi, Davenport)

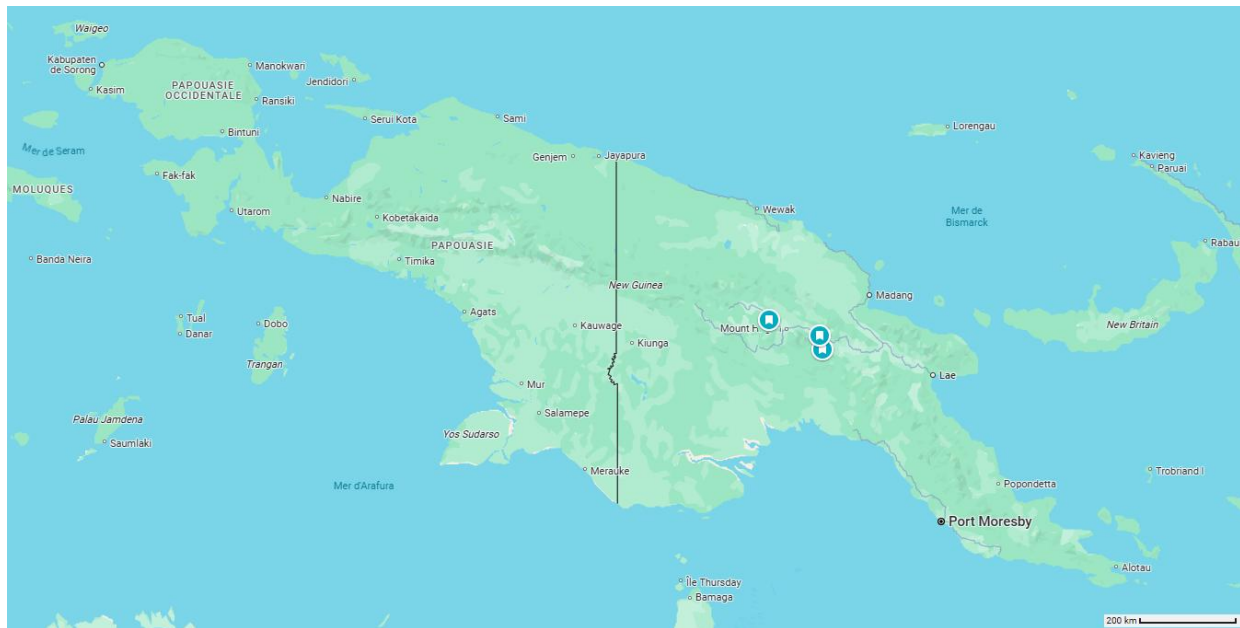


Fig. 3. Distribution of *Delias flavissima*.

Biotope

Delias flavissima is found in the high-altitude forests of Papua New Guinea. Males enjoy streams where they can obtain minerals.



Fig. 4. Pap Creek, Western Highland Province, Papua New Guinea (Picture by N. Grimaldi)

Species status

Liang et al. (2024) regarded *D. flavissima* as a distinct species and found that three specimens, included in their molecular phylogenetic analysis, were monophyletic and well differentiated from their sister clade *D. endela* + *D. subapicalis*.

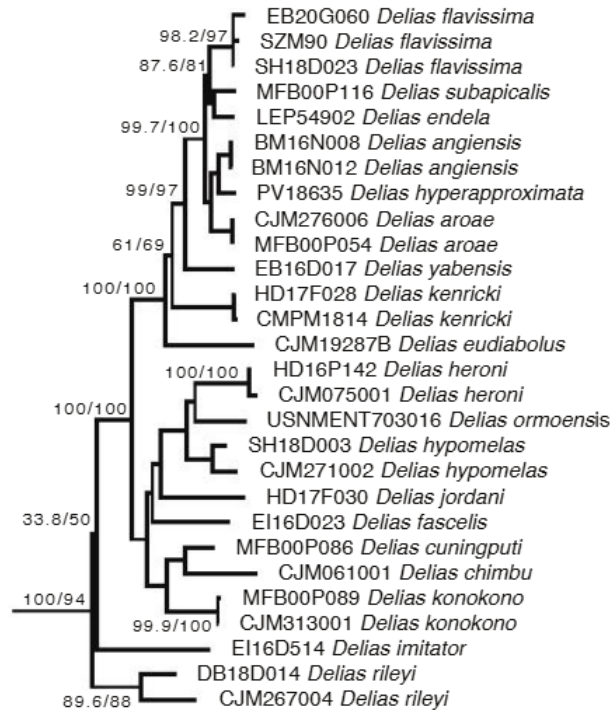


Fig. 5. Phylogeny of the *cuningputi* species group of *Delias*, modified from Liang et al. (2024).

Branch support values are indicated near selected nodes (fig. 5); the first value is ultrafast bootstrap support and the second number is the Shimodaira-Hasegawa approximate likelihood ratio support (maximum values of 100). The specimen code of each sample is indicated before its species name. See Liang et al. (2024) for more information.

Acknowledgement

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Website

Pequin, *Delias butterflies of the World* : <https://www.delias-butterflies.com/species/group-cuningputi/delias-flavissima>.