

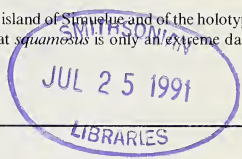
Lamproptera curius libelluloides f. *squamosus* nov. stat., with a survey of the genus (Lepidoptera: Papilionidae)

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Abstract: Study of a pair of *Lamproptera curius libelluloides* Fruhstorfer from the island of Simuelue and of the holotype of *Leptocircus meges* var. *squamosus* Van Eecke, 1913, led to the conclusion that *squamosus* is only an extreme dark form of *Lamproptera curius libelluloides*.

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Introduction

This paper discusses the *Lamproptera* species occurring on the island of Simuelue (formerly Simaloer), Indonesia, because the names given to the form from this island are rather confusing. This study is based on the holotype of *Leptocircus meges* var. *squamosus* Van Eecke and some new material in the collection of the late J. H. E. Wittpen in the Institute of Taxonomic Zoology (Zoological Museum), Amsterdam. I come to the conclusion that the var. *squamosus* is a form of *Lamproptera curius libelluloides* Fruhstorfer.

Lamproptera curius libelluloides f. *squamosus*

- Leptocircus meges* var. *squamosus* Van Eecke, 1913: 13
- Leptocircus squamosus*; Van Eecke, 1914: xii
- Lamproptera curius squamosus*; Bryk, 1929: 6 (catalogued with reference to Van Eecke, 1914, only)
- Lamproptera meges* var. *squamosus*; Bryk, 1930: 580 (catalogued with reference to Van Eecke, 1913, only)
- Lamproptera meges squamosus*; Haugum, 1979: 155
- Lamproptera meges squamosus*; Tsukada & Nishiyama, 1982: 434
- Lamproptera curius squamosus*; Bridges, 1988, i: 283 (catalogued with reference to Bryk, 1929, only)

Since the description of *Leptocircus* (now *Lamproptera*) *meges* var. *squamosus* Van Eecke in 1913, the holotype remained the only specimen of that genus known from Pulau Babi, (a little known island that lies approximately one third of the distance from Simuelue

Is. to Nias Is.; fig. 2), until I found a pair of *Lamproptera curius libelluloides* Fruhstorfer, 1896, bearing labels: "Simaloer Coll. P. J. v. d. Berg Lzn." in the Wittpen collection, which was acquired recently by the Zoological Museum, Amsterdam.

The holotype of var. *squamosus*, kept in the collection of the National Museum of Natural History at Leiden, is a female collected by E. Jacobson.



Fig. 1. Holotype of *Lamproptera curius libelluloides* f. *squamosus* Van Eecke, 1913 stat. nov. Note that on the forewing the dark-brown parts distal of the median band are more extended, at the expense of the transparent area, than in typical *libelluloides* (Scale line 1 cm).

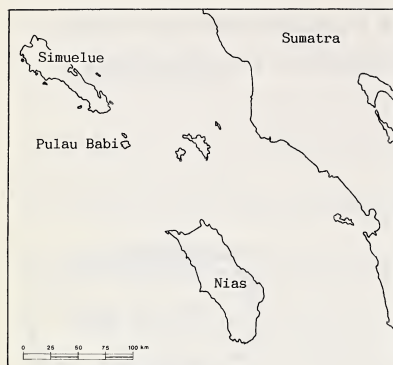


Fig. 2. Location of the islands along the northwest coast of Sumatra.

My first impression that the specimen belongs to *Lamproptera curius* Fabricius (fig. 1) was confirmed by a label attached to it, reading "Museum Leiden ♀ *Leptocircus curius* Fabr. var *squamosus* Det.: R. v. Eecke."

In spite of this, Van Eecke described *squamosus* as a variety of *Lamproptera meges* Zinken-Sommer; although he listed the differences between *curius* and *meges*, *squamosus* was described without reference to characters of these species (table 1).

For all characters but the absence of androconial smell hairs, listed in table 1, *squamosus* matches with *Lamproptera curius*. In particular, its subspecies *libelluloides* Fruhstorfer shares with *squamosus* besides the white median band on the hindwing upperside also two

light lines in the anal angle (Fruhstorfer, 1899: 179). Since *libelluloides* occurs on Nias (type locality) and on Simuelue, the conclusion is obvious that *squamosus* is only a form of *libelluloides*.

Although *Lamproptera meges* occurs on Nias (ssp. *niasicus* Fruhstorfer, 1909), there is, as far as I know, still no specimen of this species known from Simuelue or Pulau Babi. Earlier references to *meges* on Simalue concerned the unique specimen of *squamosus*. Table 2 lists the species of the genus with the distribution of the subspecies. The collections of the Zoological Museum, Amsterdam, and the National Museum of Natural History, Leiden, and my own collection enabled me to study material of most of the subspecies.

References

- D'ABRERA, B., 1982. *Butterflies of the oriental region* 1: i-xxi; 1-244. Hill House & E. W. Classey, Faringdon, Oxon.
- BRIDGES, CH. A., 1988. *Catalogue of Papilionidae & Pieridae (Lep.: Rhop.)*: i: 1-324; ii: 1-93; iii: 1-131; iv: 1-98; v: 1-37; vi: 1-12; Appendices i & ii. Ch. A. Bridges, Urbana.
- BRYK, F., 1929. Papilionidae i. In: *Lepidopterorum Catalogus* (E. Strand ed.) 35: 1-55.
- BRYK, F., 1930. Papilionidae iii. In: *Lepidopterorum Catalogus* (E. Strand ed.) 37: 513-676.
- EECKE, R. VAN, 1913. Fauna Simalurensis. Note XX. Lepidoptera Rhopalocera, Fam. Papilionidae. - *Notes Leyden Mus.* 35: 193-199, plate 9.
- EECKE, R. VAN, 1914. In: Verslag van de negen-en-zestigste zomervergadering der Nederlandsche Entomologische Vereeniging. - *Tijdschr. Ent.* 57: xii.

Table 1. Comparison of diagnostic characters of *Lamproptera curius* and *meges*. For differences in male genitalia see Van Eecke, 1913: 195 and Tsukada & Nishiyama, 1982: 433. For *meges* see also Miller, 1987: 445.

<i>curius</i>	<i>meges</i>
Median band on forewing white	Median band on forewing light greenish
Distal along the white band is a transparent area	No transparent area along the greenish band
Males have white androconial smell-hairs in the anal fold	No androconial smell-hairs in the anal fold
Claws bifurcate	Claws simple, not bifurcate
Abdomen dorsal dark brown; laterally with 3 (2) rows of brown dots in light background	Abdomen dorsal dark brown; lateral 1-2 (3) brown lines (in specimens from Celebes the light parts often also dark)

Table 2. Survey of the species and subspecies of the genus *Lamproptera* and their distribution. Literature sources are indicated as follows:

1 – Fruhstorfer, 1909a; 2 – Fruhstorfer, 1909b; 3 – Jordan, 1909; 4 – Van Eecke, 1913; 5 – Bryk, 1929; 6 – Bryk, 1930; 7 – Roepke, 1935; 8 – Talbot, 1939; 9 – Fleming, 1975; 10 – Pinratana, 1977; 11 – Hill a.o., 1978; 12 – Haugum, 1979; 13 – Igarashi, 1979; 14 – Johnston, 1980; 15 – Tsukada & Nishiyama, 1982; 16 – d'Abbrera, 1982; 17 – Treadaway, 1989; 18 – Yun-Shing, 1980.

Text references [. . .]; references to photographs and figures (. . .) are given after the area of origin of the relevant material.

Lamproptera curius (Fabricius, 1787)
(type species of the genus)

Lamproptera meges (Zinken-Sommer, 1831)

c. curius (Fabricius, 1787) = *tutationis* (Fruhstorfer, 1909a, b) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17]; Assam (13), Burma (Tenasserim), Thailand (Siam) (10), Malay Peninsula (9), Sumatra (4), Borneo (13, 15), Palawan (15), Java (7), Indochina?, N. E. China, Leyte (Philippines) (13)¹.
c. libelluloides (Fruhstorfer, 1896) [1, 3, 4, 5, 6, 12, 13, 15, 16]; Nias (3, 4, 15), Simeulue.
c. libelluloides f. squamosus (Van Eecke, 1913) [4, 5, 6, 12, 15]; Pulau Babi (4).
c. walkeri (Moore, 1902) [1, 3, 4, 5, 6, 11, 12, 13, 14, 15, 16]; S. E. China, Hongkong (3, 13, 14), Hainan (13), North Vietnam.
c. magistralis (Fruhstorfer, 1909a, b) [1, 2, 5, 12, 15]; Yunnan (Mongtse & Manhao) (18).

m. indistincta (Tytler, 1918) [4, 5, 6, 8, 12, 13 as *virescens*]; Assam (13), (North?) Burma.
m. amplifascia Tytler, 1939: Burma: Putao, Hthawgaw, Sadon
m. virescens (Butler, 1870) [1, 3, 4, 5, 6, 8, 9, 10, 12, 13, 15, 16]; Burma (13), Thailand (10), Malay Peninsula (9, 15), Hainan, S. China.
m. pallidus (Fruhstorfer, 1909a, b) = *annamiticus* (Fruhstorfer, 1909a)² [1, 2, 5, 8, 12, 15]; Tonkin (= North Vietnam), South Annam (= South Vietnam).
m. meges (Zinken-Sommer, 1831) [1, 3, 4, 5, 6, 7, 8, 12, 13, 15, 16]; Sumatra (15), Banka, Biliton, Borneo (13, 15), Java (7, 13), ? Banggi [16].
M. niasicus (Fruhstorfer, 1909a, b) = *niasicus* Jordan, 1909³ [1, 2, 3, 5, 6, 12, 13, 15, 16]; Nias.
m. emmus (C. & R. Felder, 1865) = *curius* (Wallace, 1865) [1, 3, 4, 5, 6, 8, 12, 13, 15, 16]; N., C., E. Celebes (13, 15, 16).
m. akirai Tsukada & Nishiyama, 1979 [1 as *ennius*, 15, 16]; S. Celebes (Bantimurung) (15).
m. pessimus (Fruhstorfer, 1909b) = *pessinus* (Fruhstorfer, 1909a)⁴ [1, 2, 5, 15, 17]; Palawan, Balabac (1), Domaran.
m. decius (C. & R. Felder, 1862) = *wilsonii* (Reakirt, 1864) [1, 3, 4, 5, 6, 8, 12, 13, 15, 16 (including Palawan), 17]; Philippines (excl. Palawan, Balabac and Domaran) (13, 15).

¹ The records from China and the Philippines are dubious and are probably based on mislabelled specimens.

² Fruhstorfer (1909a) described the new subspecies *m. pallidus* from Tonkin and *m. annamiticus* from Annam. Two weeks later (1909b) he published again *m. pallidus* as a new subspecies from Tonkin and Annam, but omitted *m. annamiticus* in this paper. Later authors followed Bryk (1929) in writing *annamiticus*.

³ Fruhstorfer's description of *m. niasicus* was published on August 1st, 1909 (1909a), but Jordan independently described the same taxon under the same name on August 28th, 1909. All later authors incorrectly mention Jordan as the author of *niasicus*.

⁴ Later authors use the spelling *pessimus*, following Bryk, 1929. I consider this a justified emendation of a manifestly incorrect original spelling.

FLEMING, W. A., 1975. *Butterflies of W. Malaysia and Singapore* 1: 1-64. E. W. Classey, Faringdon, Kuala Lumpur.
FRUHSTORFER, H., 1899. Neue Lepidopteren aus Asien. – *Berl. ent. Z.* 43: 175-199.
FRUHSTORFER, H., 1909a. Neue Leptocircus-Rassen. – *Soc. ent.* 24 (9): 68.
FRUHSTORFER, H., 1909b. Neue Leptocircus-Rassen. – *Soc. ent.* 24 (10): 76.
HAUGUM, J., 1979. A complete taxonomic disposition of the Papilionidae, IV. – *The Lepidoptera Group of 1968 Newsletter* 2: 155.
HILL, D. S., G. JOHNSTON & M. J. BASCOMBE, 1978.

Annotated checklist of Hong Kong butterflies. – *Mem. Hong Kong nat. Hist. Soc.* 11: 1-62.
IGARASHI, S., 1979. *Papilionidae and their early stages*: 1-218, plates 1-102 (in Japanese).
JOHNSTON, G. & B., 1980. *This is Hong Kong: Butterflies*: 1-224. GIS Hong Kong.
JORDAN, K., 1908/1909. Papilionidae. In: *Großschmetterlinge der Erde* (Seitz ed.) 9: 1-109. Stuttgart.
MILLER, J. S., 1987. Phylogenetic studies in the Papilioninae (Lep.: Papilionidae). – *Bull. am. Mus. nat. Hist.* 186 (4): 367-512.
PINRATANA, A., 1977. *Butterflies in Thailand 1. Papilionidae and Danaidae*: i-x, 1-91. Viratham Press, Thailand.

- ROEPKE, W., 1935. *Rhopalocera javanica* 1: *Papilionidae* & *Pieridae*: 1-102. Wageningen.
- TALBOT, G., 1939 (Reprint 1978). Butterflies 1. - *Fauna br. India. Lepidoptera* 1: i-xxix; 1-600.
- TREADAWAY, C. G., 1989. A check list of the Philippine *Papilionidae*. - *Papilio international* 5 (3): 375-381.
- TSUKADA, E. & Y. NISHIYAMA, 1982. *Butterflies of the South East Asian Islands. I Papilionidae*: 1-457. Plapac Co. Ltd. Tokyo (English Edition).
- YUN-SHING, G., 1980. Butterflies of southwestern China. - *Yadoriga* 101/102: 1-2.

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