

Taxonomy Studies on the Subfamily Psychinae (Lepidoptera: Psychidae) of Kerala, India

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Abstract: Three species namely, *Brachycyttarus subteralbata*, *Pteroma plagiophleps* and *Metisa plana* have reported from the Kerala part of Western Ghats.

Key words: Psychidae • Psychinae • Lepidoptera • Western Ghats

INTRODUCTION

Psychidae Rambur, 1886, *Cat. Syst. Lepid. Andalousie*: 313

Type Genus: *Psyche* Schrank, 1801: Vertex and frons dressed with erect scales; antennae filiform, long; labial palpi small with numerous lateral and terminal bristles; maxillary palpi absent or reduced with 1-2 segments; forewing with basal fork of A_{1+2} extremely long and prominent.

Key for Separation of Species

Subfamily: Psychinae

- Alar expanse 13-15 mm; male genitalia with uncus indented; aedeagus slender, pointed and tubular ----- *Brachycyttarus subteralbata* Alar expanse 10-11 mm; forewing with vein six absent ----- 2
Alar expanse 13 mm; forewing with vein six absent --- ----- 3
- Uncus bilobed with few short spines; saccus V-shaped and prominent; aedeagus broad and arched at apex ----- *Pteroma plagiophleps*
- Uncus bilobed with few short spines; saccus V-shaped and prominent; aedeagus broad and arched at apex ----- *Metisa plana*

Subfamily: Psychinae

- *Brachycyttarus subteralbata* Hampson, 1892, *The Fauna of British India including Ceylon and Burma- Moths Vol.I*, (ed.) Blanford, W.T. Published by Taylor and Francis, London, 296.

Collection Data: Arienkavu; April, 2001 (1 ex.).

Distribution: All over Kerala.

Host: Unknown.

Remarks: Adults were collected from light.

Alar Expanse: 13-15 mm.

Male Genitalia (Plate I, Fig. 1): Saccus basally broad and distally produced into a handle shaped processes. Valvae elongate, narrow and of more or less uniform breadth throughout with the apical part slightly narrow and fringed with short hairs. Uncus broad-tongue shaped, slightly cleft in the middle. Aedeagus long rod shaped with the apex cleft forming two lobes.

Metisa plana Walker, *A field guide to smaller moths of South East Asia*. Malaysian Nature Society [2], Malaysia. 1994:38.

Collection Data: Rosemala; March, 2001 (2 ex.).

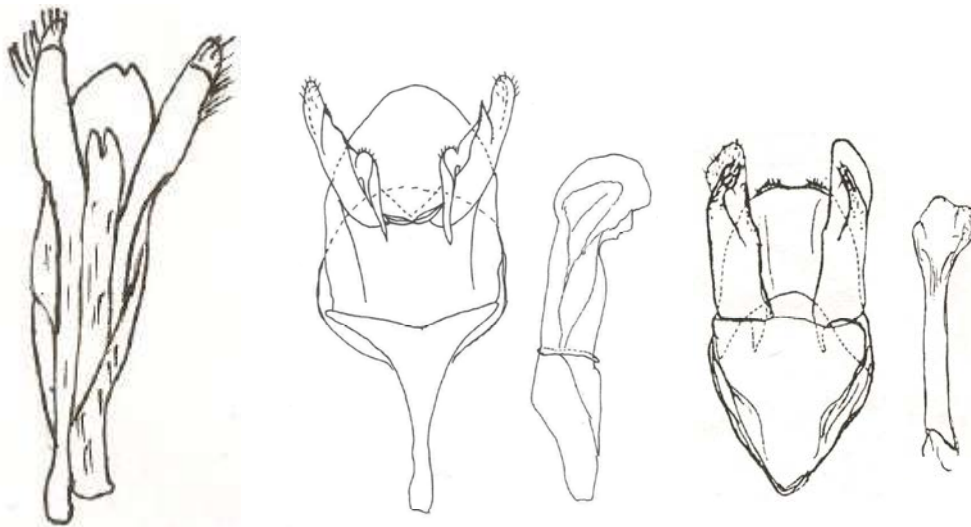
Distribution: All over Kerala.

Host: Serious pest of oil palm.

Remarks: Both adults and larvae were collected.

Alar Expanse: 13 mm.

Male Genitalia (Plate I, Fig. 2): Uncus rounded, arch shaped structure; socii absent; saccus basally broad expanded into two arms, distally prolonged into a handle shaped processes. Vinculum long and Y-shaped; transtilla small with a median connective; sacculus arched, harpe curved and narrow at apex, valvae short, narrow basally elongated in the inner margin a flap like lobe. Apical portion fringed with short stiff spines; a sub apical conical, pointed lobe seen near the apex. Aedeagus long, hook like at apex, which bends and tapers towards the end, vesica with cornutus.



Brachycyttarus subteralbata

Metisa plana

Pteroma plagiophleps

Plate 1: Genital Morphology Of Subfamily Psychinae

Pteroma plagiophleps [1], *The Fauna of British India including Ceylon and Burma- Moths Vol.I*, (ed.) Blanford, W.T. Published by Taylor and Francis, London, 296.

Collection Data: Peechi; November, 2002 (2 ex.).

Distribution: All over Kerala.

Host: *Casuarina equestifolia*

Remarks: Most of the larval cases were collected mainly from host mentioned above.

Alar Expanse: 10-11 mm.

Male Genitalia (Plate I, Fig. 3): Uncus indent, bilobed with few short spines; socii absent; valvae short, narrow of more or less uniform breadth, apically narrowed and ending in a blunt apex; a distinct harpe arising from 1/3rd distance from the apex from the outer margin. Vinculum narrow and elongated; saccus massive U-shaped. Phallus short, tubular with the apex expanded into an irregular lobe.

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REFERENCES

1. Hampson, G.F., 1892. *The Fauna of British India including Ceylon and Burma- Moths Vol. I*, (eds.) Blanford, W.T. Published by Taylor and Francis, London, pp: 577.
2. Robinson, G.S., K.R. Tuck and M. Shaffer, 1994. *A field guide to smaller moths of South East Asia*. Malaysian Nature Society, Malaysia, pp: 309.