

***HOLCOCERUS FUSCIBASIS* (HAMPSON) COMB.
NOV. (LEPIDOPTERA: COSSIDAE) — A NEW
RECORD FROM INDIA WITH ITS REVISED
DESCRIPTION**

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(With 1 Text-figure and 1 Plate)

INTRODUCTION

The family Cossidae constitutes an important group of moths as far as their economical as well phylogenetic importance are concerned, and recently revised by the author (Arora, 1976) on the basis of the material present at Z. S. I., Calcutta as well as drawn from various other sources. Hampson (1895) described this species as *Cossus fuscibasis* from Burma and was retained under this nomenclature in the revisionary studies since no material of this species was available. A male (plate VIII, fig. 3) has been collected recently from Shillong and was compared by the author with its original description, photographs of the type and its genitalia (Plate VIII, figs. 1-2) and was found to be conspecific.

The antennae are simple, laminate type, which is the characteristic feature of the genus *Holcocerus* Staudinger, to which genus this species (Plate VIII, fig. 3) is being assigned here. Besides, the genus is also characterised by the dilated hind tibiae which are beset with two pairs of tibial spurs; reduced frenulum and retinaculum; connate Rs-M₁ in the hind wings; and with the gnathos meeting below the uncus, in the male genitalia.

This rare species was described from Burma, rather inadequately, on the basis of a single specimen mentioned as a female but actually was a male. The present paper deals with the revised description of the species, including its genitalia which is described here for the first time, in the light of new combination.

SYSTEMATIC ACCOUNT

Holcocerus fuscibasis (Hampson) comb. nov.

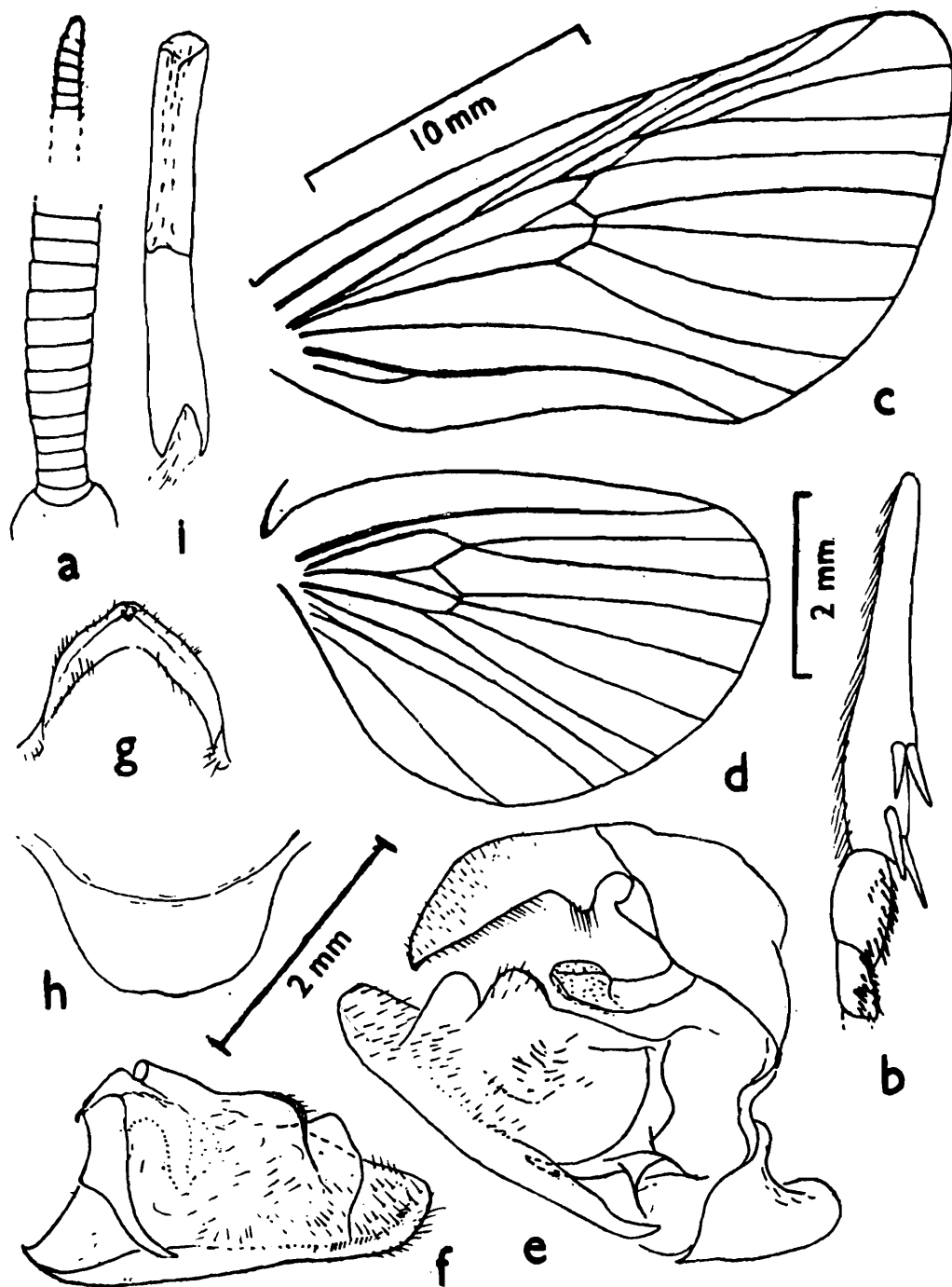
1895. *Cossus fuscibasis* Hampson, *Trans. ent. Soc. Lond.*: 287 (Type loc.—N. Chin Hills, Burma).
 1896. *Cossus fuscibasis* Hampson, *Fauna Brit. India*, Moths, 4 : 473.
 1976. *Cossus fuscibasis*, Arora, *Rec. zool. Surv. India*, 69 : 36-37.

Male.—Head with the frons, labial palpi and vertex brown, grizzled; antennae brown. Thorax dark brown in the centre, pale-greyish brown on sides extending onto the metathoracical area. Abdomen dark brown throughout, mixed with grey scales, the tip greyish. Fore wings with the basal two-thirds dark brown, irrorated with fuscous; darker in the middle, bounded on outer side by irregular black postmedial line which is angled outwards at vein M_3 , incurved below vein M_3 up to $1A$ and sending a streak along $1A$; a pale patch below the cell between median nervure and $1A$; the distal area greyish, striated and reticulated with striae; the outer margin with small fuscous patches at the end of each vein from $1A$ to R_4 , beyond which the patches become black and continue downwards into striae. Hind wings with the basal half fuscous except on the costal and inner area; the area beyond discocellular from below costa to inner vein greyish, striated and reticulated with fuscous. *Underside*: Thorax and wings fuscous, mixed with grey, more so in the basal two-thirds of the wings, the inner area being greyish and unmarked, the distal area and hind wings greyish, striated and reticulated with fuscous. Abdomen dark fuscous brown except near the extremity. Legs dark fuscous brown, hairy.

Head with the frons smooth; labial palpi moderate, not extending beyond frons and closely appressed to face. Antennae (Text-fig. 1 a) simple, laterally flattened from near the base to tip; about 63 segments present in the shaft, the total length not exceeding half the costal length of fore wings. Legs with a single pair of spurs on mid tibia, two pairs on the hind tibia (Text-fig. 1 b), the latter dilated beyond middle; tarsal segments beset with rows of spines. Hind wings with a single short and almost functionless frenulum since the latter does not reach up to the reduced retinaculum.

Venation.—Fore wings (Text-fig. 1 c): Vein R_1 arising free from the cell; R_2 from near the tip of areole which is extremely small; R_3 connate with the common stalk of R_{4-5} ; M_1 from upper angle of cell; median vein forked, forming a cell, the lower branch ending at M_3 ; M_2 - M_3 close to each other, from the lower angle of the cell; Cu_{1a} from lower angle; Cu_{1b} from behind, arising after the origin of median cell in the discocellular cell; Cu_2 present; $1A$ forked at base. Hind wings (Text-fig. 1 d) with the vein Sc free; Rs - M_1 connate; median

branched, forming median cell, with the lower branch ending between M_2 - M_3 ; three anal veins present.



Text-fig. 1. *Holcocerus fuscibasis* (Hampson) : a. parts of antenna, b. part of the hind leg with spurs; c. fore wing venation, d. hind wing venation, e. genitalia, lateral view without one of the claspers, f. a clasper as seen mesally, g. uncus, h. saccus, i. Aedeagus. (e-i of the same magnifications as of a, and d as of c).

Genitalia.—(Text-figs. 1 e-i.) Uncus sclerotised, gradually narrowing from base to apex, terminating into a point which is pointed downwards; gnathol arms curved inwards initially but later curved outwards, meeting below the uncus through *bulla* (of Roepke, 1957) which is sclerotised above. Tegumen short and broad; continuing below into short vinculum; saccus very broad. Clasper about twice as broad as its apex,

narrowing gradually from base to apex; mid-dorsal area, towards mesal side, raised into two prominent ridges one of which does not reach beyond the half way, while other runs across as far as two thirds from costa; distal area membranous; spinabasalis well developed, but short. Juxta weakly sclerotised at its basal area. Aedeagus simple, cylindrical, without any ornamentation.

Female.—Not known.

Material examined.—India : Meghalaya, Shillong, Arunachal Circuit House, 1670 m., 1 ♂, 7.v.1976, At light (S. Khera and G. S. Arora coll.)

Measurements.—Expanse, 53 mm.; fore wing, 24 mm.; hind wing, 16 mm.; abdomen, 16 mm.; body length, 24 mm.

Distribution.—Burma: N. Chin hills. India: Meghalaya, Shillong (New record).

Comparison.—*Holcocerus fuscibasis* (Hampson) comb. nov. is close to *Holcocerus arenicola* (Staudinger) in respect of the origin of R_2 from areole and M_1 from cell angle, unlike in another species viz., *Holcocerus rufidorsia* (Hampson) where R_2 is close to the origin of R_3 or stalked with it, and M_1 arises from above the cell angle. It, however, differs from *H. arenicola* in the ending of lower branch of median cell in fore wing at M_3 (vs between M_2 - M_3 in *arenicola*).

In respect of the male genitalia this species differs from *H. arenicola* and *H. rufidorsia* in the structure of claspers which have two prominent but unequal ridges across (vs several short ridges not reaching half way across the clasper in *H. arenicola* and with one slight ridge in *H. rufidorsia*).

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