

## Status of genus *Abisara* Felder and Felder (Lepidoptera : Riodinidae) in the Indian Himalayas with taxonomic notes on the species *A. fylla* (Westwood)

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**ABSTRACT :** The genus *Abisara* Felder and Felder has been represented by nine species *Abisara fylla* Hewitson, *A. echerius* Stoll, *A. abnormis* Moore, *A. kausambi* Felder and Felder, *A. saturata* Moore, *A. savitri* Felder, *A. nephron* Hewitson, *A. chela* de Nicéville, *A. bifasciata* Moore from Indian Himalayas. But during the surveys in this area from 1991 to 1998 in different periods of the years, only one species i.e., *A. fylla* could be collected, which inferred that this genus has come under threat. Besides, in present studies the female genitalia of *A. fylla* is studied for the first time.

**Keywords :** Lycaenidae, Riodinidae, *Abisara, fylla*, female genitalia

### INTRODUCTION

According to Eliot (1992), the genus *Abisara* Felder and Felder is distributed throughout the Oriental region and is also represented in tropical Africa. Bridges (1988) has enlisted twenty eight species world over and out of these thirteen belong to the Oriental region (d' Abrera, 1986). In Indian context, the scrutiny of relevant literature shows that the genus with ten species viz., *Abisara fylla* Hewitson, *A. echerius* Stoll, *A. abnormis* Moore, *A. bifasciata* Moore, *A. kausambi* Felder and Felder, *A. saturata* Moore, *A. savitri* Felder, *A. nephron* Hewitson, *A. chela* de Nicéville and *A. burnii* de Nicéville has a restricted distribution largely in the North-East Himalaya, except *A. echerius* Stoll which is also reported from South-India (Evans, 1932; Wynter-Blyth, 1957; d' Abrera, loc. cit.; Haribal, 1992), of which nine species are reported from India except *A. burnii*. However during present surveys only one species i.e., *Abisara fylla* could be collected from Arunachal Pradesh. The female genitalia of this species is described for the first time.

### OBSERVATIONS

#### Genus *Abisara* Felder and Felder

**Common name.** The Judies Felder and Felder, 1860, Wien. ent. Monats. 4 : 397; Bingham, 1905, Fauna Brit. Ind., Butts I ; Evans, 1932, Ident. Indian Butts (2nd ed.) : 196; Bennett, 1950, Entomologist 83(1): 2; Eliot, 1992, Butts Malay Penin. (4th ed.) : 207.

*Lycaena* Hübner, [1819], verz. bekannt. Schmett. (2) : 23.

*Sospita* Hewitson, [1861], Ill. exot. Butts 2 : (91).

*Sosibia* Fruhstorfer, [1914], In Seitz, Grossschmett. Erde 9 : 179.

Type-species : *Abisara kausambi* Felder and Felder  
Felder and Felder, 1860, Wien. ent. Monats. 4(12): 397.

Eyes hairy; labial palpi short, porrect, not extending beyond head, third segment very small, dome shaped, acuminate; antenna with club well defined, spindle shaped; middle and hind tibiae with a single terminal spur; forewing with 12 veins, stalk of veins  $R_3 + R_4 + R_5$  and vein M1 separated at end cell, vein Sc. and vein  $R_1$  free, hindwing with vein RS originated well beyond end cell; female genitalia with genital plate weakly sclerotized, ductus seminalis enters dorsad near base of ductus bursae, corpus bursae well marked, ovate, a pair of pustule shaped signa present, apophyses anteriores and apophyses posteriores absent.

#### *Abisara fylla* (Westwood)

**Common name.** The Dark Judy Westwood, [1851], In Gen. diurn. Lep. (2) : pl. 69 b 3 (*Taxila*); Bingham, 1905, Fauna Brit. Ind., Butts I : 490 (*Abisara*); Evans, 1932, Ident. Indian Butts (2nd ed.) : 196 (*Abisara*); Pinratana, 1988, Butts Thailand : 42 (*Abisara*).

*fyllaria* Fruhstorfer, [1914], In Seitz, Grossschmett. Erde 9 : 780 (*Abisara*).

**Female Genitalia.** Lodix not developed; genital plate squarish, lamella antevaginalis weakly sclerotized, broad, C-shaped, with a semicircular emargination in middle of distal margin, lamella postvaginalis more sclerotized, rectangular plate-like with rounded angles; ductus seminalis membranous, enters dorsally at base of ductus bursae; ductus bursae long, with narrow sclerotized base dorsally, otherwise membranous, gradually broadened distally, inception at corpus bursae well marked; corpus bursae ovate, shorter than ductus bursae, membranous, with a pair of pustule-like signa; apophyses anteriores absent; apophyses posteriores not developed; papilla analis weakly sclerotized, oval, pilose.

Forewing length; Female : 27 mm.

## MATERIAL EXAMINED

Arunachal Pradesh : 1 ♂, 2.V.95, Itanagar, 550 m ASL, Papum Pare.

Range : 550 m ASL.

*Old distribution.* Mussoorie to Assam and Burma, Thailand.

*Larval food plant.* *Maesa chisia* D. Don (Sevastopulo, 1973).

## Remarks

Out of nine species recorded from India viz., *Abisara fylla* Hewitson, *A. echerius* Stoll, *A. abnormis* Moore, *A. kausambi* Felder and Felder, *A. saturata* Moore, *A. savitri* Felder, *A. nephron* Hewitson, *A. chela* de Nicéville, *A. bifasciata* Moore (Evans, 1932; Wynter-Blyth, 1957; Varshney, 1994), during the course of present intensive and extensive surveys undertaken during premonsoon, monsoon and postmonsoon seasons, only one female of the species, under reference, could be collected from the above mentioned locality. So much so, no specimen could be collected at Mussoorie (Uttarakhand) from where, it has been reported earlier by Bingham (1907), Ollenbach (1929), Evans (1932), Peile (1937) and Wynter-Blyth (1957). It may specifically be mentioned here that Mussoorie and its surrounding areas have been vastly explored for butterfly collections in the I.C.A.R., New Delhi sponsored projects between 1991 to 1998. However, prior to this, Shull (1958, 1962) too did not record this species from Mussoorie. Except this species becoming rarer, it is being felt that either the previous records are rather too ambiguous or all the species have become extinct due to obvious reasons of habitat destruction and loss of larval host plants, for which no information is available.



Female (upperside)

Female (underside)

Fig.1. *Abisara fylla* (Westwood).

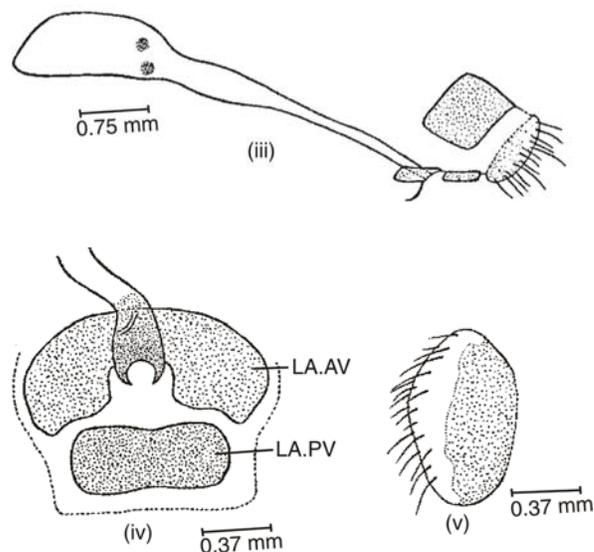
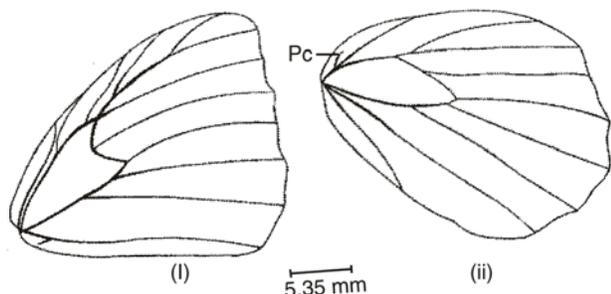


Fig.2. (i) Venation of forewing. (ii) Venation of hindwing. (iii) Female genitalia (lateral view). (iv) Genital plate. (v) Papilla analis.

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