FOOD PREFERENCE OF THE YELLOW COSTER BUTTERFLY Pareba vesta (NYMPHALIDAE: LEPIDOPTERA) IN THE GREAT HIMALAYAN NATIONAL PARK, HIMACHAL PRADESH

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ABSTRACT

Larval food preference and developmental stages of yellow coster butterfly, Pareba vesta Fabricius, were observed particularly in Debregeasia salicifolia (D.Don), in the valleys of Great Himalayan National Park.

INTRODUCTION

Nymphalids are widely distributed and richly represented in Himalayan region. Globally 14 subfamilies are recorded of which 10 are found in Indian region. Of the total number of butterflies in the world one third are Nymphalidae (Haribal, 1992). The yellow coster butterfly, Pareva vesta is the member of subfamily Acraeinae and only two species are recorded in Indian region and both are small and highly diversified found in Himalaya.

Butterflies help in cross pollination and the distribution of butterflies depend on the availability of the prefered food plant. The association between butterflies and plants is highly specific. There are few butterfly species which are associated with the grasslands, grassy clearing in woods and open grassland habitat in Himalaya (Uniyal and Mehra, 1996). The developmental stages of yellow coster butterfly were observed only on Debregeasia salicifolia in the valleys of Great Himalayan National Park.

Study area

The observation site selected for the present study lies between the elevation of 1500 to 2000m. in Tirthan Valley of the Great Himalayan National Park (GHNP) situated between Lat. 31°38' 15" and 31° 56' 41" North and Long, 77° 20' to 77° 52' 11" E in Kullu district of Himachal Pradesh. About one third of the park area supports closed canopy forest representing five broad forest types.

Observations

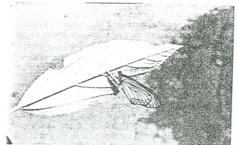
The black and small hairy monophagous larvae were first observed in the month of February 1996 on the leaves of Debregeasia salicifolia of family Urticaceae. It is a good fodder plant in this region. A soft hairy evergreen shrub, with broad to narrow lancelolate sharply toothed alternate leaves which are densely white-woolly beneath. It is found upto 2500m. elevation in Himalaya. In autumn it is full of yellow to orange raspberry like edible fruits. The plants are dicecious (Polumin and Stainton, 1988).

Weekly larval observations were made at different sites. After about 3 months duration all the larvae turn into slightly yellowish white patch on its dorsal side and are visible only when larvae were fully stretched. The larvae are clothed with 50 to 53 black to brown bristles and about 3 to 3.5 cm. in length and feed on the leaves

When the larvae are ready to pupate, it attaches to the leaf

Life cycle of Yellow Coaster butterfly





Moulting from Pupa



Adult Yellow coster

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with silk pad and pupa has yellow and black bands on it. After a period of rest, it start undulating movement from tail up. On he basis of the morphology of pupa it is very easy to listinguish the pupa of yellow coster from other species. The supa is pale pink at first, slowly black and orange dots starts appearing, and by the end of the day the pupae turns into light bink with black and orange.

The pupa takes 7-10 days to emerge into adult. The details of ving markings, head, eye, can be observed even before mergence. The pupa splits open on the back, the butterfly crawls out of it and finds suitable resting place, and ready to ly in search of food and mate. After a short flight it comes back to rest on the same plant. The adults mate and

reproduce. The first emerged yellow coster are seen in first week of June. The eggs are small round and yellow in colour. The adult yellow coster butterfly is yellowish dark veins with a wing span of 6-8 cm. It has a very short flight range.

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