

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, *Pareba 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 preferred 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.

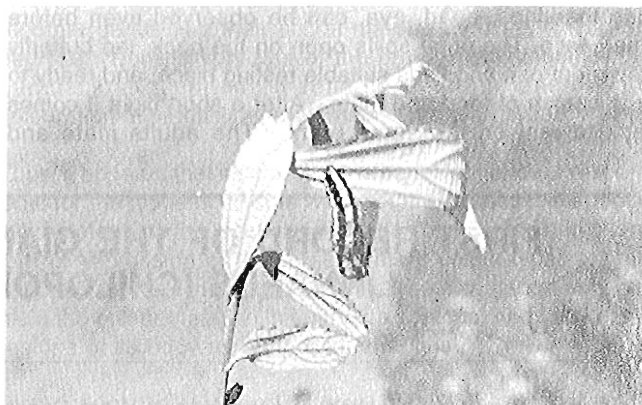
Observations

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 lanceolate 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 dioecious (Polumin and Stainton, 1988).

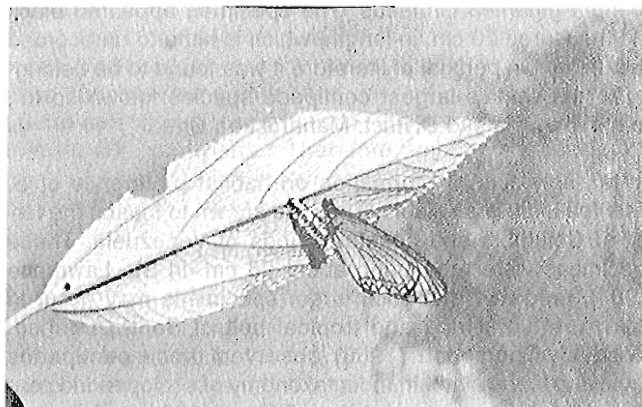
Weekly larval observations were made at different sites. After about 3 months duration all the larvae turn into slightly yellowish white patch on its dorsal side and are visible only when larvae were fully stretched. The larvae are clothed with 50 to 53 black to brown bristles and about 3 to 3.5 cm.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

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

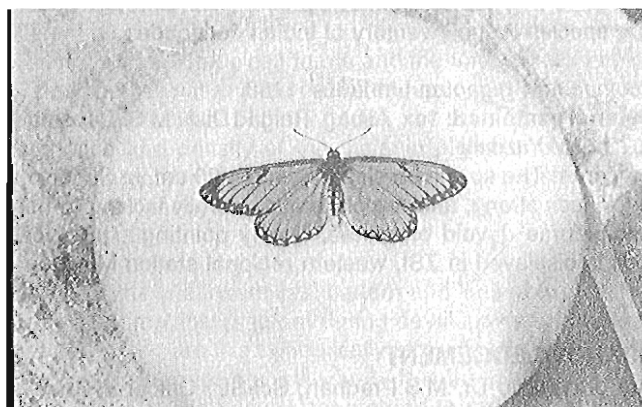
Life cycle of Yellow Coaster butterfly



Pupa



Moulting from Pupa



Adult Yellow coaster

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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 the basis of the morphology of pupa it is very easy to distinguish the pupa of yellow coster from other species. The pupa is pale pink at first, slowly black and orange dots starts appearing, and by the end of the day the pupae turns into light pink with black and orange.

The pupa takes 7-10 days to emerge into adult. The details of wing markings, head, eye, can be observed even before emergence. The pupa splits open on the back, the butterfly crawls out of it and finds suitable resting place, and ready to fly 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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FIRST RECORD OF THE GIANT CENTIPEDE *Scolopendra gigantea* LINNAEUS (CHILOPODA, SCOLOPENDRIDAE) FROM INDIA.

B.E. Yadav

While working out a collection of centipede of West Coast Survey, I came across an interesting giant centipede *Scolopendra gigantea* Linnaeus. The specimen appeared black and measured 20 cm. in length, which is hitherto unrecorded from India. On persual of literature it was found to be belonging to the world's largest centipede species known so far, from Alibag, Raigad District, Maharashtra State.

So far, only scanty information on habitat preference of *S. gigantea* Linn. is available. They are known to inhabit the forest of Columbia and coastal islands of Venezuela. These specimens were measuring about 26 cm. in SL. Lawrence (1984), predicted that such larger specimens may occur in Malaya, India, Africa and tropical belt of South America. Cloudesly-Thompson (1958) observed these centipedes devouring toads also. In India taxonomy of scolopendrid centipedes has been studied by Jangi & Dass, (1984) and Khanna and Kumar (1984). However, there is no record on the giant centipede *S. gigantea* Linn. The present find therefore adds a rare species to the inventory of Indian centipedes.

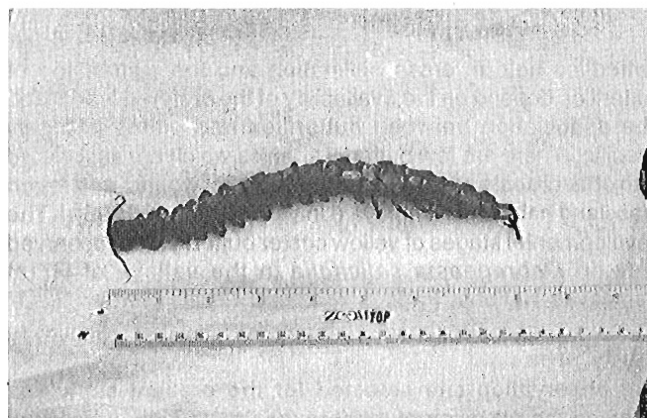
Scolopendra gigantea Linnaeus 1758.

Material examined: 1ex, Alibag, Raigad Dist : M.S. December 1973, G.M.Yazdani

Remarks: The specimen size measures 20 cm. in SL, colour black, legs strong, anal leg prefemur ventrally lacking spines, coxopleurae devoid of spines, simply pointing. The specimen is displayed in ZSI, western regional station Museum.

ACKNOWLEDGEMENT

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Shaikh Iqbal

Giant Centipede- dead specimen

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Zoological Survey of India, Western Regional Station, Pune 411 005.