

Record of New Larval Host Plant for *Acraea terpsicore* (Tawny coster)

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Abstract

Acraea terpsicore L. is commonly known as the Tawny Coster butterfly, it belongs to the Nymphalidae or Brush-footed butterfly family. Its common larval hosts depend on the availability of *Turnera subulata*. The study has been carried from January to July 2015 in Thammampatti, Salem district in Tamilnadu. *A. terpsicore* larvae were found in *Turnera subulata* and *Passiflora foetida*. From this observation it is evident that host preference is prevalently exhibited in larval feeding of Tawny Coster. On the availability of *T. subulata* the choice of *P. foetida* is found meagre. The caterpillars were counted once a week in both the populations during an observation period of six months. *T. subulata* and *P. foetida* plants respectively envisaging its host preference of *T. subulata* over *P. foetida*. It is reported here for the first time as a new larval host of Tawny Coster.

Keywords: *Acraea terpsicore*, Tawny Coster, larval host, *Turnera subulata*, *Passiflora foetida*.

1. Introduction

Acraea terpsicore (Linnaeus, 1758), belongs to the Nymphalidae family is commonly known as the Tawny Coster butterfly and widespread throughout India. The genus *Acraea*, commonly referred to as brush footed butterflies comprises of around 250 species mainly confined to African region with a few species occurring in India, South East Asia and Australia. In India this genus is represented by two species viz. the common Tawny Coster, and the Yellow Coster- *Acraea issoria* (Hubner, 1819) which is restricted to the Himalayan region. In Peninsular India, Tawny Coster is found frequently in grass lands and scrub jungles wherever its larval host *Passiflora spp.*, the passion flower plants, grow [1]. This butterfly is found throughout the year in forest clearings, open country and gardens. Distasteful to predators, and has a slow fluttering flight, not high above the ground It exudes a bad smelling yellowish oily fluid from glands in leg joints which makes it unpalatable to birds and most of the insects. Its common larval hosts known so far are *Aporosa lindleyana*, *Adenia hondala*, *Modecca palmata*, *Passiflora edulis*, *Passiflora foetida*, *Passiflora subpeltata* and *Hybanthus enneaspermus* [2-4].

2. Study Area

The present study was undertaken in the Thammampatti, Salem district, Tamil Nadu, India
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during the month of January to July 2015. Thammampatti is situated between Pachamalai and Kolli hills. The elevation of the 974 feet above mean sea level and lies between 11^o 26' North latitude and 78^o 29' East longitude. *Turnera subulata* was identified and authenticated by Botanical Survey of India (BSI), Coimbatore.

3. Observation and Record

The Tawny Coster butterfly is a common and one of the most abundant butterflies at the Thammampatti. The reason was the availability of its host plant i.e., *Passiflora foetida*, a slender climber, native to tropical South America, now naturalized in India. Apart from the Passion flower climbers, the White Alder *Turnera subulata* Sm. (Turneraceae), a perennial herb, was also found to be a much preferred larval host plant for the Tawny Coster butterfly. The plant is native of tropical America, now naturalized throughout the Indian subcontinent. It is reported here for the first time as a new larval host of Tawny Coster. The White Alder plants grow upto 2 feet tall, producing numerous branches from a woody base. The leaves are alternate, ovate-elliptic or ovate-oblong, very distinctly dentate-serrate. It produces large creamy white flowers with dark brownish-black throat [5].

A total of 226 individuals of *Turnera subulata* and 32 of *Passiflora foetida* were observed during the survey. Although the ratio of abundance is approximately 7:1, the latter seemed to dominate in area coverage owing to its trailing habit. But predominantly, the Tawny Coster butterfly's larvae were found in 136 individuals of *T. subulata* and only 14 individuals of *P. foetida*. From this observation it is evident that host preference is prevalently exhibited in

larval feeding of Tawny Coster. On the availability of *T. subulata* the choice of *P. foetida* is found meagre. The caterpillars were counted once a week in both the populations during an observation period of 6 months from January to July 2015. *T. subulata* and *P. foetida* plants had 624 and 29 caterpillars respectively envisaging its host preference of *T. subulata* over *P. foetida*.



1. *Turnera subulata* – habit



2. Larva of *Acraea terpsicore* feeding on *T. subulata*



3. Larva of *Acraea terpsicore* feeding on *Passiflora foetida*



4. Molting



5. Before Pupating



6. Pupa stages of *Acraea terpsicore*

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