OVIPOSITION MISTAKES IN BUTTERFLIES

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Butterflies select host plants for oviposition using chemical cues. Females usually oviposit only on those plants which are suitable for larval growth and survival. They usually select new larval food plants, which are related to their usual host plants. Bell (1909) reported drumming behaviour in female butterflies prior to oviposition in order to check the physical and chemical properties of the host plant. Ilse (1956) also recorded such behaviour in many female butterflies in India and suggested that this behaviour helps them in selecting correct food plant. The present paper is on some unusual oviposition behaviour as shown by the Common Crow, *Euploea core* (Cramer) and the Common Sailor, *Neptis hylas* (Moore).

The incidents occured in front of tile Madappally Government College Staff Quarters, Vatakara, Kozhikode District. It is situated neer the Madappally Government College Campus which is on a small hill (50m) near the Malabar Coast. On October 25, 2000, a sunny day at around 1100hr, I saw a Common Sailor (*Neptis hylas* (Moore): Nymphalidae) in the garden in front of my house flying around *Clerodendron paniculatum* (Verbenaceae). By curving its abdomen it was trying to oviposit on the leaves. After several attempts it finally laid an egg at the tip (upperside) of a leaf and flew away. The tender leaf along with the leaf part containing the egg was transferred to a glass bottle arid kept for hatching. After two days the larva emerged and tried to feed on the tender leaf. Though it was able to feed on a part of the leaf it failed to continue feeding and died after two days.

On 20 and 21 December 2000, at around 1200hr I saw two specimens of *Euploea core* laying 4-5 eggs singly on the tender leaf bases of *Allamanda cathartica* (Apocynaceae) in the same garden. Some of the cream-coloured eggs with tender leaves werecollected and kept for hatching. After two days the larvae emerged. Though they tried to feed on the leaves (the leaves contained some milky exudate characteristic of the family Apocynaceae) they failed. Finally after 3-4 days all the larvae died. The remaining eggs were left in the field. After hatching they also died after 2-3 days.

The food plants recorded for the Common Sailor are plants belonging to Papilionaceae (Seitz as quoted by Sevastopulo, 1973), Leguminosae, Tiliaceae, Malvaceae, Sterculiaceae, Icacinaceae (Wynter-Blyth, 1957), Bombacaceae, Mimosaceae and Acanthaceae (Kunte, 2000; Gunathilagaraj *et al.*, 1998). Plant belonging to Verbenaceae has not been recorded as the food for the Common Sailor.

Euploea core is known to feed on five plant species belonging to Asclepiadaceae and seven species of Moraceae. From Apocynaceae it is known to feed on three species of *Nerium*, *Holarrhena pubescens*, *Holarrhena antidysenterica* and *Ichnocarpus frutescens* (Wynter-Blyth, 1957).

The Common Sailor is a common butterfly around the Staff Quarters premises. During my observation I could not find any predator or any other danger which may probably lead to this mistake. In the garden, along with *Clerodendron paniculatum* (Verbenaceae) there were some *Bauhinia* sp. (Leguminosae). But it has not been recorded as the food plant of any Sailor butterfly. Other leguminous plants are included in the host plant data. *Clerodendron* and *Bauhinia* were growing very close along with other plants and their leaves overlapped with each other. The butterfly might have selected *Bauhinia* sp. as the new food plant and probably the overlapped leaves of *Clerodendron* might have confused it leading to such a mistake.

In the case of Common Crow also there was no predator attack or such disturbances. It was also found to breed on a *Ficus religiosa* sapling nearby, a month before this observation. What is really baffling is that the Common Crow selected a plant (related plant) belonging to its usual host plant family (Apocynaceae) and even then the larvae failed to survive on it, both in the field and laboratory. Is there any special chemical in *Allamanda cathartica* which is not present in other Apocynaceous host plants which causes the unpalatability? These observations made me conclude that the incidents were oviposition mistakes by these butterflies. Are there any other reasons behind this phenomenon?

Acknowledgements

I thank Dr. C. Radhakrishnan (Joint Director, ZSI, WGRS, Kozhikode), Dr. P.M. Sureshan and Md. Jafer Palot for encouragement and facilities.

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Manuscript received on 14 June 2001 *Accepted for publication on 20 August 2001*