Butterfly Gardens

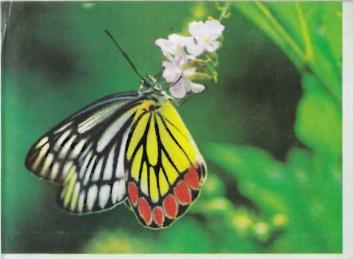
Peechi & Nilambur





Kerala Forest Research Institute

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Common Jezebel (Delias eucharis)

Butterflies and moths, scientifically classified under the order Lepidoptera, form the second largest group of class Insecta. Kerala has about 330 species of butterflies many of which were once very common in our backyards and countrysides. The developmental activities of man have led to destruction of the natural habitats of butterflies leading to disappearance of many species. Species loss has tremendous implications on the sustenance of natural ecosystems. We need to recreate our lost habitats to conserve our flora and fauna.



Southern Duffer (Discophora lepida): a highly endangered species of butterfly in the Western Ghats

Butterfly Gardening

Butterfly gardening is an attempt to nurture and sustain different species of butterflies in a recreated habitat by providing appropriate ecological niche. Such gardens help in conserving the local butterfly fauna and for creating public awareness on biodiversity conservation.

Conditions for sustaining butterflies

In a butterfly garden, a sustainable butterfly population is maintained by providing appropriate microclimatic conditions (temperatures between 20 - 25°C and humidity above 85%), appropriate host plants which are preferred by butterflies for laying eggs or feeding on nectar and suitable habitats such as openings, shade, dampness etc. A list of some of the common host plants is provided overleaf.



An aggregation of Common Albatross (Appias albina)

Design of the garden

There are two major areas in the garden: a butterfly exhibit area for observing butterflies at close range and a butterfly forage area to enhance their colonization and breeding within the garden. A long trek path is also set up connecting the different areas.

Life cycle of Butterflies

Butterflies have a short life cycle, which is completed in a few weeks. There are four distinct stages in the life cycle of a butterfly- egg, caterpillar, pupa and imago(butterfly). The immature stages are guite different from the adult.

Eggs are laid singly or in clusters on the foliage of host plants on which the caterpillars feed. The eggs hatch into caterpillars within 3 to 5 days.

The Caterpillars which feed vora-

ciously on foliage of host plants are

elongate with the body composed of

a head, three-segmented thorax and

five-segmented abdomen. Typically

there are three pairs of legs on thorax

and five pairs of abdominal legs on

segments 3 - 6 and 10. Caterpillar stage

lasts for 10 - 14 days.



Egg of Southern Birdwing





Pupa of Southern Birdwing

The next stage, The Pupa, is entirely different from the caterpillar which is devoid of visible appendages and is oval or cylindrical in shape. Pupal stage lasts for 7-15 days after which eclosion of the adult butterfly takes place.

The Butterfly has colourful wings, elongated clubbed antennae and a coiled feeding tube (haustellum). Unlike the caterpillar, it feeds on nectar or sap exuding from trees or fruits. The life span of butterflies is usually 2 - 3 weeks.

Adult: Southern Birdwing (Troides minos)





Red Pierrot (Talicada nyseus nyseus)



Blue Mormon (Papilio polymnestor)



Commander (Moduza procris)



Yam Fly (Loxura atymnus atymnus)

Some common butterflies of Kerala and their host plants

BUTTERFLY SPECIES

LARVAL HOST PLANTS

Aristolochia indica Pachliopta hector(Crimson Rose) P. aristolochiae (Common Rose) Aristolochia indica Troides minos (Southern Birdwing)

Aristolochia indica, Thottea siliquosa Graphium doson (Common Jay) Michelia champaca

Graphium agamemnon (Tailed Jay) Michelia champaca, Annona sp. Graphium sarpedon (Blue Bottle) Cinnamomum verum

Chilasa clytia (Common Mime) Cinnamomum verum Papilio demoleus (Lime Butterfly) Citrus limon, Citrus spp.,

Aegle marmelos, Ruta graveolens, Murraya koenigii

Papilio polytes (Common Mormon)

Citrus aurantia, Citrus medica, Citrus aurantifolia, Citrus limon.

Aegle marmelos, Murraya koenigii, Murraya exotica, Zanthoxylum rhetsa.

Papilio polymnestor (Blue Mormon) Citrus aurantia, Citrus grandis Papilio helenus (Red Helen)

Zanthoxylum rhetsa

Delias eucharis (Common Jezebel)

Loranthus sp.

Eurema hecabe (Common Grass Yellow) Cassia fistula, Cassia tora, Albizia odoratissima.

Caesalpinia pulcherima

Catopsilia pomona (Common Emigrant) Catopsilia pyranthe (Mottled Emigrant)

Cassia sp. Cassia occidentalis, Cassia sp.

Gangara thyrsis (Giant Red Eye)

Ornamental palms

Tirumala limniace (Blue Tiger) Tirumala septentrionis (Dark Blue Tiger) Parantica aglea (Glassy Blue Tiger) Danaus genutia (Striped Tiger) Danaus chrysippus (Plain Tiger) Euploea core (Common Crow)

Wattakaka volubilis Wattakaka volubilis Tylophora indica Asclepias curassavica Calotropis gigantea Carissa carandas. Ficus religiosa.

Ficus tomentosa, Ficus racemosa,

Hemidesmus indicus

Talicada nyseus (Red Pierrot) Rathinda amor (Monkey Puzzle) Kalanchoe blossfieldiana, Kalanchoe pinnata

Mangifera indica, Ixora sp.

Moduza procris (Commander) Cupha erymanthis (Souhtern Rustic) Acraea violae (Tawny Coster)

Mussaenda laxa Flacourtia sp. Passiflora edulis

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