

Butterfly Gardening:

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Need for a Garden - We are rapidly losing greenery in the name of development. With the diminution of greenery, butterflies, birds and all wildlife is fast disappearing. The ensuant to this is a complete imbalance of the eco-system and extinction of many species. Although we cannot completely undo the ill effects of urbanization and development, we can at least try to reduce its effects by planting endemic trees and plants at our place that supports the local wildlife. This will make sure that at least the common species will not go on to the verge of extinction.

Importance of Butterflies – Butterflies, as every one knows are very good pollinators. Apart from this, they play a very important role in the food chain as insects, birds, small mammals and reptiles extensively feed on butterflies. They also increase the aesthetic beauty of your place and provide a means to relax yourself.

Butterfly Gardening - Creating a Butterfly Garden is not a Herculean task. All you need is a list of local host and nectar plants and a little place to plant them. Creating and restoring butterfly habitats will ensure that your family gets first hand experience in gardening. They can also enjoy the butterflies and birds that get allured by these plants.

It is ideal to have a large location where you can re-create the natural habitat for birds and butterflies. But considering the soaring rates of the lands and flats in the present day, it is almost impossible to get a place or even think about gardening. With whatever free space you have, you can use it intelligently to create a garden of your own. Following are some of the important things that you need to take care of –

Host and Nectar Plants – This is the most important aspect of butterfly gardening. Every butterfly species has a specific set of host plants on which its caterpillar feed. So by looking at the butterfly diversity of a

place, it's possible to predict the floral diversity and vice versa. Whatever the host and nectar plants you select, make sure that it is indigenous. At the end of this article I have listed out some of the very common host and nectar plants.

Minerals and Water – Butterflies do need minerals, which they get from mud patches, soil, carcasses, salt, manure, rotten fruits and vegetables, tree sap etc. You can place a small sand box in your garden, which contains wet soil along with few rotten fruits and salt. This will definitely entice the species, which regularly mud-puddle. Mud-puddling is the activity during which the adult butterflies intake the minerals and salts from the mud.

Shelter from Wind and Heavy Rains – Since butterflies happen to be fragile, delicate creatures, they cannot survive in the winds and heavy rains. So it's absolutely necessary to have a few sheltering places. A thicket of shrubs and hedges can serve as a sheltering place. Some of these shrubs and hedges can also be host plants.

Place to Bask – Butterflies are cold blooded by nature and hence dependent on external climatic conditions to maintain their body temperature. Typically you can see many of the butterflies basking in the sunlight. So it's necessary to have a few places in your garden that have good exposure to the sun. Some of the butterflies love basking on rocks. Adding a few large stones is just fine.

No Pesticides, Insecticides and Inorganic Farming – Just make sure that you don't use pesticides and insecticides. The very purpose of butterfly gardening will be lost if you use insecticides. Also make sure you don't use chemicals to increase the fertility of the soil. This also affects the macro habitats of insects.

Let the caterpillars grow – It's a natural tendency to prune the branches having the caterpillars, pupae and eggs. Please don't do this. Although some of the caterpillars might look a little scary and weird, they are completely harmless. Just observe the caterpillars and see how they metamorphose into a lovely butterfly.

Observation and Recording – Once you see a bunch of eggs or caterpillars on a plant, you can start recording following things –

- Number of days before the eggs hatch.
- Changes in the color and activities of the Caterpillar between each Instar.
- Total time period of the caterpillar stage
- Time period within the Pupa
- Natural Predators Etc.

If you are not comfortable doing all these things, its ok. You can just visually enjoy the different life stages of a butterfly.

Shifting the Caterpillar and Pupa: You can shift the caterpillar to a safer place, if you think it's not safe on the host plant or if you closely want to observe its development. You can keep the caterpillar in a big box, which is properly aerated. Every day you have to provide the fresh leaves from the host plant and you need to take out the faecal matter and clean the box to avoid microbial infection and predators. Make sure that you keep few sticks slanted, so that the caterpillar can construct the pupa.

It's also possible to shift the pupa to a safer place, as they are more prone to attack by microbial infection and wasps. For doing this you have to be extra-cautious not to damage the pupa or change its alignment. Both will result in the death of the butterfly. Also make sure that, when you shift the pupa to a safer place, the place should not be too hot or too cold. This affects the development of the butterfly within the pupa and results in either the death or the aberration of the adult butterfly.

Photography: Early morning is the best time for butterfly photography. This is the time when most of the butterflies bask in the sun. The other advantage is that the sunlight will not be too harsh, so you can take photos with right exposures. If it's a digital camera it has to be at least 4 Mega Pixels and if you have a SLR, it is necessary to buy a macro lens.

Just after the pupation the adult butterfly takes few minutes to dry its wings. This is the time when it will be most vulnerable, as it cannot fly. And this is also the right time to take photos, as you will get plenty of time to experiment with your subject. Make sure that you don't touch this fellow, otherwise its wings will get crumpled and it can never fly. Usually the pupation takes place in the early morning.

Patience - You set up your butterfly garden and you don't to see any butterflies. In this case, please don't get upset!!! It's not like, the moment you create the butterfly garden, all the butterflies near your place will get this information through SMS or E-mail!!! Just have patience and wait. Whenever an impregnated female butterfly flies near your place, there will be more chances of it finding a host plant in your garden than the neighboring places. So having a garden just increases the chances and will not sure ensure the presence of butterflies. So till the females lay eggs you cannot see any activity of caterpillars on the host plants. Some of the caterpillars live inside the leaves, fruits, flower buds and ant nests, so although the caterpillars are there, you might never see them!!! Anyway there will always be adult butterflies and insects visiting the nectar plants.

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List of Host and Nectar plants are given at

http://www.flutters.org/home/docs/NorthEast_SouthIndia_HostPlants.pdf