

Butterflies

Butterflies are the supermodel of the animal world, where they start life as a caterpillar; they are eating machines with a little promise for the beauty to come. As adults, they look like flowers with wings and hence known as flying flowers, the wings and petals are vital for reproduction. They are dressed to impress with their gaudy markings to reveal their true nature, grow up from a caterpillar to a butterfly, it is a tale of two lives. They turn delicate and beautiful as adults, ferocious and ugly as grubs. A butterfly's life is divided into four parts; egg, caterpillar, chrysalis, adults, and each character has a central role to play in butterfly theatre of life and each part demands a costume change.

I. Egg

The butterflies are oviparous and lay their eggs in spring and summer, but it can vary from one species to another. They lay their eggs either one at a time or in clusters or in batches of hundred on the host plants. The eggs can be seen on the underside of the leaf, in the crevices of tree bark or flower heads, they are laid onto a safe and secure location. The shape of a butterfly's egg ranges from having a diameter of 1 and 3mm. Moreover, the shape and size of the egg depends on the species, they are typically round, oval or pod shaped and with a smooth texture of white, yellow, green, blue or any other colour. The butterfly's eggs have intricate patterns and each egg consists of a yolk that provides nourishment to the developing larva. It may take up to 2-8 days for an egg to hatch but it depends on the environmental conditions and change in the colour can be noticed before the eggs hatch. The eggs have a tough shell that has raised ribs and a small funnel shaped opening, known as micro pile that allows the passage of air and water. The eggs are always at the risk of being eaten by the predators or poisoned by a chemical attack.



II. Caterpillar

The caterpillars hatch into insects who are eating shoots, they are voracious feeders and they eat plant leaves and consume 86 times of their body weight. Caterpillars have various growth phase, known as instars. The caterpillar sheds its cuticle that's an outer layer made of protein and chitin and this process is called Apolysis. The molting of cuticle takes place at the end of every instar, and till it reaches the last instar phase the wings begin to take place. Stripping even the mighty oak tree bark, caterpillars are under constant attacks, played by parasites, birds, and bugs, only a few will survive the stage



Crimson rose
Common Mormon
Indian jezebel



Large Salmon Arab
Common Buckeye
Blue Glassy Tiger



White Peacock
butterfly
Southern Birdwing
Morpho butterfly



III. Chrysalis / Pupa

At this stage the caterpillar stops feeding and search for a substrate to performing the last molting, at this stage prothoracicotropic hormone is produced. And the wings undergo rapid mitosis and this requires a lot of nutrients in this phase. The pupae protects itself from predators by producing certain types of sounds. Hidden in a chrysalis pupa, the caterpillar changes its costume down the wings into adults and many will not make it like all good glares



IV. Adult Butterfly

Emerging from the chrysalis the butterfly requires about 3-4 hours for the wings to dry completely for flying properly. After this the butterfly's life is not without suspense and tragedy, at every curve they die from dehydration, disease, or fall victim to the enemies, so caterpillar, chrysalis, and adults have evolved defences, they have become poisonous, camouflaged, or taken on discards.

Mating is the sole role of an adult butterfly, they show up their looks with painted wings and snuggle their partner with a sweet scent. For butterflies, the art of seduction involves good looks and perfume. And in the end, they'll mate by separating one life in a creature that eats and another that breeds. Butterflies and caterpillars avoid competition and could concentrate on what they do best. Their compound eyes detect a wider range of the spectrum than humans limited perception, they can even see ultraviolet lights way beyond a human's visual range. Their colours come from thousands of minute scales on their wings overlaid like roofing tiles. Some scales are tinted with pigments, others pick light into rainbows colour like oil on the surface of the water, result wings look different from different angles, and this refraction of light is what makes eye spots flash their warnings or shine in intimidating irregular glare. The size, shape, and colour of a butterfly's wings indicate its sex, species, and health or relays messages like its poisonous and does not taste good. Male butterflies shower their partners with perfume. Aroused by any other name will ever smell so sweet. Butterflies have evolved to produce a strongly scented chemical in their genitals, which they leave behind after sex to deter other males from pursuing their mates. Flowers use coloured petals to attract pollinators and Butterflies use coloured wings to attract a mate and just like flowers use nectar to attract pollinators.

