

BIOGRAPHY OF BUTTERFLY

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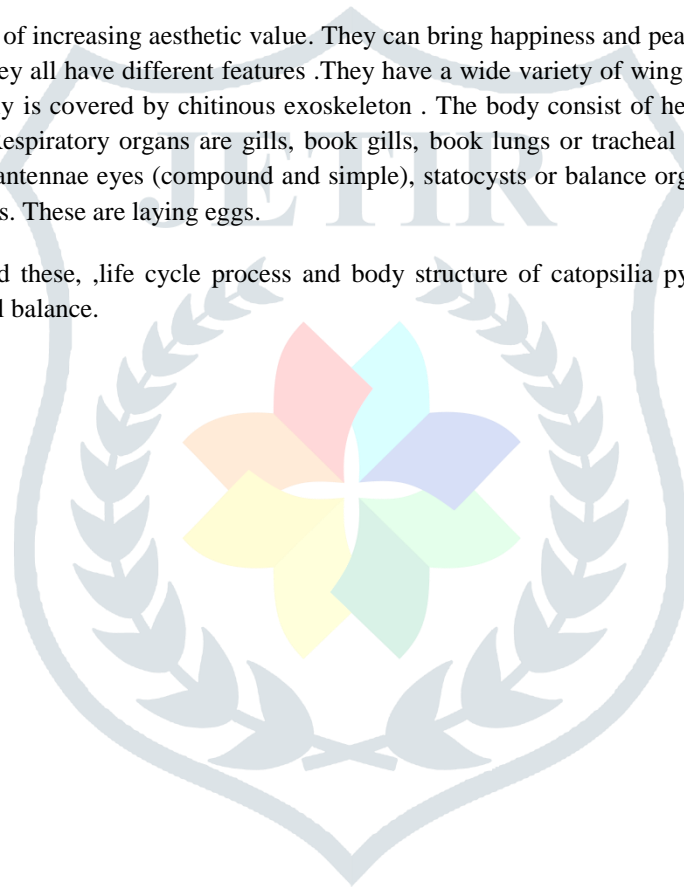
Abstract

In a world full of diversity it is very difficult to understand its diversity. Butterflies are one of them. There are many ways to identify butterflies that provide warmth and happiness. Butterflies are ones of that fly into the world of colour. Their beauty makes nature more beautiful. But how do they transform from a silly worm into something so beautiful and so delightful. The world has many colourful butterflies how to understand these? This illustrate their role in retention between its ecological balance in salient features, body structure and its life cycle process.

Introduction

Butterflies are an important part of increasing aesthetic value. They can bring happiness and peace in human life. There are many butterflies in our vicinity, but they all have different features. They have a wide variety of wings. Butterfly is also an example of arthropod. The body of butterfly is covered by chitinous exoskeleton. The body consist of head, thorax and abdomen. Jointed appendages appears on these. Respiratory organs are gills, book gills, book lungs or tracheal system. Circulatory system is of open type. Sensory organs like antennae eyes (compound and simple), statocysts or balance organs are present. Excretion takes place through malpighian tubules. These are laying eggs.

Key wards : How to understand these, ,life cycle process and body structure of catopsilia pyranthe, salient features , role of butterflies to maintain ecological balance.



I. How to understand these



Each type of butterfly will have destined larvae or chrysalis. The colour of the butterfly's wing is similar to that of the larvae. Adult female butterfly's egg will be deposited in the appropriate plant form in order to ensure easy access to food. The plants used for their food differ. They will be laid on these plants (Cherry, Ale, Ponnariveeran). Their growth is rapid. We can identify moth through egg shape, Larvae or caterpillar, pupa.

1.1 Egg shape

Each butterfly will have its own egg. These are too small to see. Adult female butterfly's egg will be deposited in the appropriate plant form in order to ensure easy access to food. The shape, size and colour of the egg varies. This helps to identify the moth.

Example:

Butterfly	Shape	Size	Colour
Catopsillia crocale	Cylindrical	1-2 mm	Pure white
Swallowtail	Round	1mm	Pale yellow
Monarch	Oval	1-2	White

1.2 Larvae or caterpillar

Egg hatch at the time of maturity period is completed the larvae come outside and stay in resting position two or more hours and after this time larvae eat some portion of leaves. Their main job is to eat food. This is how they store food for processing in future periods. What is the colour of larvae immediately before it become pupa and that colour is reflected in the butterfly's wings. This allows the butterfly to be identified.

1.3 Pupa

Each butterfly has its own pupa. It has different colour like green, silver, etc. The size and shape of these are difficult to pinpoint. The butterfly can be seen indistinctly on the days immediately preceding pupa maturity colour and design reflected in these. This time is possible to accurately identify the butterfly. The pupa of butterflies is also called a chrysalis. Each part of the pupa will have colour features that will appeal to anyone. The anterior part of the pupa is the rear of the larvae. The anterior part of the leaf is grafted on the underside of the leaf and rest hanging. The middle part of the pupa is attached to the leaf by two strong silken threads.

II. Life cycle process and body structure of *catopsilia pyranthe*

Family -pieridae

Sub family-coliadinae

Kingdom - Animalia

(Un ranked)-Panarthropoda

Phylum - Arthropoda

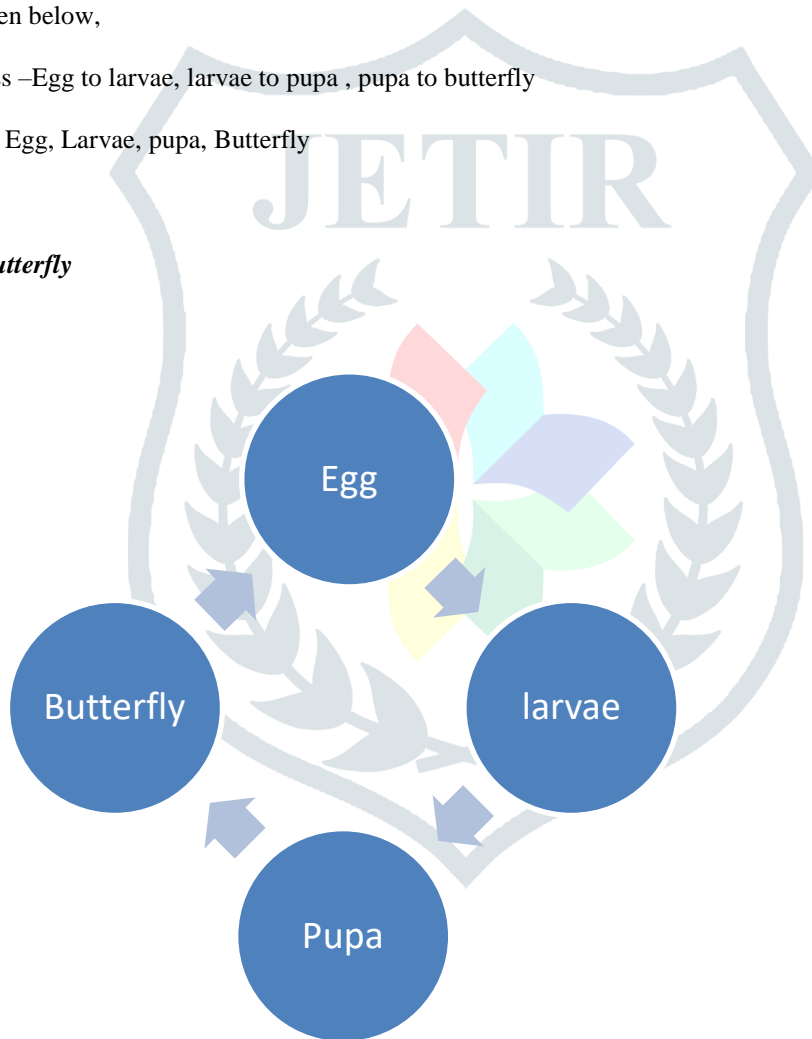


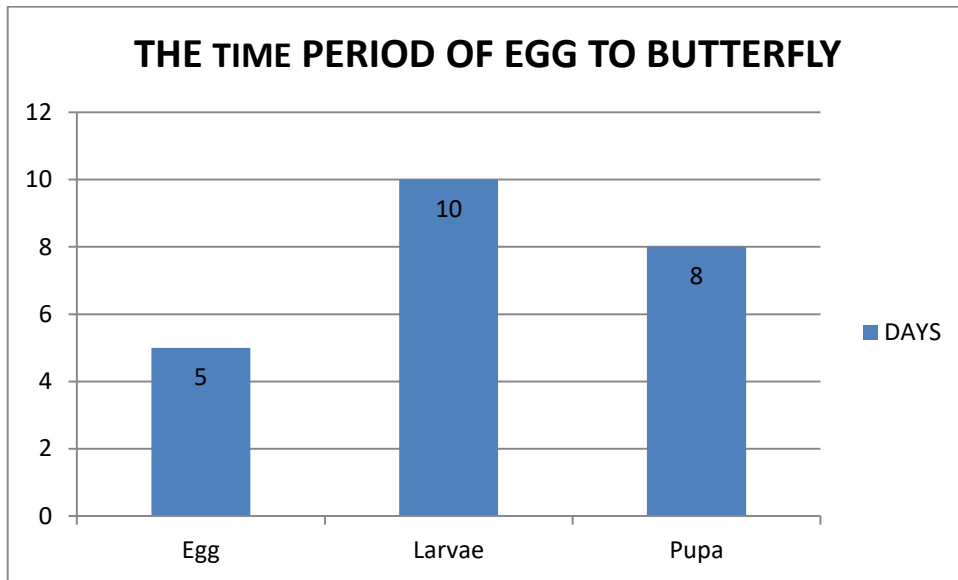
The life style of moth start with egg (Birth) and end with the death .It is a cyclic process under this three process and four stage are their. That are given below,

Three process –Egg to larvae, larvae to pupa , pupa to butterfly

Four stages_ Egg, Larvae, pupa, Butterfly

Cyclic Process of Butterfly





EGG



The butterfly egg of a *catopsilia pyranthe* is cylindrical shaping. They are white in colour and are very small to see. This Egg is most commonly found in ponnariveeran plant. They only lay eggs on this plant. Female butterfly deposit the egg in the suitable plant. This is done so that they are feed when they hatch .These eggs have an average length of one mm to two mm. The leaves are found in the manner in which the is injected. The eggs are deposited in such a way that the sun does not directly hit them. It takes about five days for the eggs to hatch .

Larvae or Caterpillar



Once the egg maturity period is complete, the eggs begin to hatch. Which are twice as long as the eggs. The hatched larvae are a fluorescent green in colour. The hatched larvae is about 4mm long. Two or three hours after hatching, it will be in the resting position. It is only then that they can be eaten. As they grow, their diet and body composition is different. Maturity period of this is 9 to 10 days. It is represented in a table format.

Days	Colour change	Features
1 -5	Fluorescent green to fern green	On both sides of the larvae, there is a white stripe along the upper leg.
6	Fern green to shamrock green	The upper part of the larvae will be in an inverted "U" shape. Their body will be flexible. A small black spot is visible above the white line on either side of the body.
7	Shamrock green	During this time the skin on the face of the body will be relaxed and the body will have a suitable face. The whole face has a small black spot.
8	Forest green	The small yellow spot is visible at a fixed distance between the white stripes on either side of the body. The small black spot above the white line is clearly visible this time.

9 or 10	Forest green to mint	They hate food for these days. Eat very few leaves. These will then be displayed in the resting position. These appear to be leaning toward the top. This time it will be found in the “U” shape. Their backs are adhered to the leaf and their waist is silk threaded. Their skin will be completely shaken before they move in to pupa. Moving from the rear to the front. This time their blood circulation can be clearly seen. Blood will pass 50 times in a minute It is not possible to change from “U” shape to another position. Trying to change them can be addictive.
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Pupa



They are found in the “U” shape while larvae are being transferred to the pupa. It can be seen that the hind legs are glued to the leaf and that the front legs are glued together. This pupa will be green in colour. A yellow line appears on either side of them. The rear of this is in the shape of a cone, and middle part in concave shape, back portion of the middle part in convex shape and front part in “V” shape. It takes eight days to switch to a pupa a butterfly and this time there is a colour change. Nothing will be a pupa green colour for two days. It has a three centimetre length and one centimetre breadth. The front v-shape combines with the yellow which appears to be either side of them. Small yellow line front of convex. Pupa’s green colour changes to pale yellow colour in 3-6 days. On the seventh day the colour, design of the wings partially visible. On the eighth day the fuzzy butterfly design is clearly visible. The front will break and the butterfly comes out. These will remain in the resting position for two hours and then fly away.

III. Salient features

- The larvae that hatch eggs are found in the fluorescent green in colour. The food is eaten from one side. This is because they eat food. Their teeth are flat. It exists on both the top and bottom.
- Their legs are in bush type. It is used in branches. Their legs have spider like yarns. They used it in the event of a fall below.

- Their legs are able to pull in and intersect. Their legs are arranged in three types like the rear, the left and the front . These will be a set of legs (two / pair). Only one set is visible on the back. There will be four set on the left .The rear legs and left legs can be raised to the front. The back and left sides of the bush are yellow in colour But the front legs are different from these. The front legs are hairy and sharp. This used to move from one leaf to another. The front legs have three sets. The exterior of these is found in the “n” shape. This area is green, with black, white and yellow on both sides.
- The skin of these shakes will be shaken twice in first time face skin only, second time body skin moves.
- The Crust is dark green in colour and is almost circle shape.

IV. *Role of butterfly to maintain ecological balance*

Moth plays a lot of roles in maintaining the ecological balance and listed below

- ❖ These causes the food web to be immovable.
- ❖ It helps to pollination process.
- ❖ These can increase the aesthetic value.

If for some reason they are unable to make a roll these affect the ecological balance directly or indirectly. The major causes of threats to butterfly are human action enumerated as follows.

1. Maximum utilisation of resources.
2. Increase the commercial activity.
3. Industrialisation.
4. Over use of pesticides.
5. Deforestation.
6. Climate change.
7. Pollution.
8. Urbanisation.
9. Exploration of newer area to fulfil increased.

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