

A study on life cycle of *Cheilomenes sexmaculata*

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Six spotted zig zag lady bird is a type of ladybird belonging to genus *Cheilomenes*. Even though the beetle is known to everyone their life cycle is not commonly known to us. The aim of this research project was to identify the different life stages of the six spotted zig zag beetle. Six spotted zig zag ladybirds (*Cheilomenes sexmaculata*) is a species of ladybird. It was described by Johan Christian Faricius in 1781 It is well known as a predator of aphids and other small insects. There are several types of this species. The species has a wide distribution range within Asia and subtropical zones from India to Japan and parts of Australia. Even though the ladybird beetles are commonly known their life cycle is not commonly known in detail. So I am publishing about my findings based on the life cycle of six spotted zig zag ladybird beetle.

About the study

This study was done at Sasthamangalam (8.5130° N, 76.9715° E), Thiruvananthapuram, Kerala, India on April 2020. Sasthamangalam is a place situated in the Thiruvananthapuram city, which is rich in biodiversity due to the presence of greenery and the killi river.

According to my observations there are seasons in which this six spotted zig zag ladybird beetle can be seen, basically during

summer season many can be found. So I had opted to observe the six spotted zig zag ladybird in April. For my observations I had found a gooseberry tree in which there were may six spotted zig - zag ladybirds were found. There were habitated in branches. I realised that an ecosystem had been formed there.

As I was continuing the observation I had spotted a different shape insect among them. There were similarity between this and six spotted zig zag ladybird. While I was observing further, I had confirmed that this was the larva of the six spotted zig zag ladybird. I had also found the pupa stage of the six spotted zig zag ladybirds. But I was unable to spot eggs

Larval stage

It will just look like a caterpillar. The body can be divisible into head thorax and abdomen region. The head region was yellow in color. The legs will be present on the abdomen region and the thoracic region will be long which will appear like a tail. Both the thoracic and abdomen region are fused together both the region will be grey in color and will be have black and white spine like structure that spine like structure is known as tergal plates. The thoracic region is divisible into three region as pronotum, mesonotum and metanotum

At the initial stage the larva will be in black color. As it get older the tail region will become grey color with white spots will appear on it. The abdomen is mainly divided into segment.



Fig. 1 The larva will feed on the aphids so it also help to control the aphids on the plants

Pupal stage

Pupa can be seen attached to the leaf. At the initial stage the pupa will be the same color as that of larva. Later the pupa will get a cream color with spiny like projections and will become black.

Both the ends of the pupa will be attached to the leaf and the mid region will be

slightly bend. It will take 1-2 weeks for the adult six spotted zig zag ladybird beetle to come out.

Adult stage

Basically 2 varieties of six spotted zig zag ladybird was been observed. The six spotted zig zag lady bird beetle with yellowish orange colour were common among them. The other type was having a reddish orange shade.



Fig 2. Pupal stage



Fig 3. Reddish orange variety

There will be 2 zig zag line on the either side of it. The head region will be in a cream color. There will be two spots in the back side of it. These were the observation made during this research.

Acknowledgement

I am thankful to my uncle Jee Francis (Archeological Researcher) my teacher Dr K.G Manju (Assistan Proffesor, Zoology department, Mar Ivanios College and my friend Nayansubhramanyam for giving me all the support and inspiration to do this research and to publish the work successfully.



Fig 4. Yellowish orange variety

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MS Received 25 October 2021

MS Accepted 2 December 2021