

A preliminary checklist of butterflies recorded from Vimala College, Thrissur, Kerala

¹ Minnu George, ² Lakshmi Devi Menon, ³ Presty John, ⁴ Baaby Job, ⁵ Sandhya P.V, ⁶ Midhu K Johnson

^{1, 2, 5, 6} Dept. of Zoology, Vimala College Thrissur, Kerala, India.

³ Forest Entomology, Kerala Forest Research Institute, Peechi, Kerala, India.

Abstract

A total 22 species of butterflies belonging to 4 families have been recorded during January 2015 to June 2015. Among them the family Nymphalidae showed the maximum species richness, comprising of 10 species; followed by Family Papilionidae and Pieridae (5 species), Lycaenidae with 2 species. Endemic species like *Melanitis leda*, *Euploea core*, *Junonia iphita* and *Junonia almana* could be observed during the study period. The present study provides a preliminary data of diversity of butterflies in Vimala College campus, Thrissur. From this study, it was inferred that the site is worth for further investigative studies on Lepidopteran diversity and landscape ecological studies.

Keywords: Butterfly, Checklist, Abundance, species richness, endemic

1. Introduction

Butterflies have been regarded as the symbol of beauty and grace (Rafi *et al.*, 2000) [1]. They are the best known insects due to their diurnal habitats and readily recognized by their bright colours, marvelous shapes and graceful flight give pleasure to everyone (Javaid, 1978) [2]. They are beneficial as pollinator, environmental indicator and have great aesthetic and commercial values (Ahsan and Javaid, 1975) [3]. Butterflies are the most charismatic and beautiful creatures among the insect group, they are often regarded as flagship species. These are perhaps the most studied and well known insect groups. In terms of indicator organisms for biodiversity studies, butterflies are an excellent choice as they are common almost everywhere, attractive and easy to observe. Of the 334 species that have been recorded from Western Ghats, 37 species are endemic to the region and 316 species have been reported from Kerala (Palot *et. al* 2012) [4].

The present study was undertaken with an objective of providing a baseline data of the butterfly community of Vimala College.

2. Methodology

A) Study area (Map: 1)

Study area selected for the present study was Vimala college campus (10° 55' 25'' N and 76° 22' 72' E), which is situated 5 KM away from Thrissur district. The total area of the campus is about 29.26 acres. The vegetation mainly comprises deciduous species, ornamental shrubs, herbs and grasses. The dominant plants in the area are *Allamanda cathartica*, *Ervatamia coranaria*, *Ixora coccinea*, *Nerium odorum*, *Gomphrenna*

gobra, *Lobelia alsinoides*, *Caryota urens*, *Polianthes tuberosa*, *Celosia cristata*, *Dianthus clinensis*, *Nerium oleander*, *Fusticia simplex*, *Impatiens balsamia*, *Crossandra infundibuli*, *Chysathemum coronarium*, *Catharanthus roseus*, *Mirabilis jalapa*, *Polyalthia longifolia*, *Canna indica*, *Asclepias curassanica*, *Hibiscus rosinensis*, *Musa acuminata*, *Musa balbisiana*, *Pisum sativum* and *Lantana camara*. The campus has a rich flora of flowering plants, herbs, shrubs, and trees intermingled with palms and banana plantations; which provides an excellent habitat for the butterfly fauna.

B) Sampling of butterflies

Sampling of butterflies was conducted from January 2015 to June 2015. The butterflies were collected by sweep net. The collection was carried out in the early hours of the day as butterflies are usually active during that time. The specimens were also photo-documented during the study period. Identification of collected butterflies was done in laboratory of KFRI Peechi, Thrissur. All scientific names followed in the present study are in accordance with Varsheny (1983) [5] and common English names follow Wynter- Blyth (1957) [6].

3. Results and Discussion

A total 200 individuals of butterflies belonging to 22 species and 4 families were recorded during the study period. On the basis of number of collected species family Nymphalidae was the most dominant family with 10 species, followed by Pieridae (5), Papilionidae (5) and Lycaenidae (2) (Table-1).

Table 1: Checklist of butterflies in Vimala College, Thrissur Kerala

S. No.	Family Name	Common Name	Scientific Name
1	Pieridae	Common Jezebel	<i>Delias eucharis</i> Drury, 1773
2	Pieridae	Mottled Emigrant	<i>Catopsilia pyranthe</i> Linnaeus, 1758
3	Pieridae	Common Grass Yellow	<i>Eurema hecabe</i> Linnaeus, 1758
4	Pieridae	Common Emigrant	<i>Catopsilia pomona</i> Fabricius, 1775
5	Pieridae	Psyche	<i>Leptosia nina</i> Fabricius, 1793
6	Papilionidae	Lime Butterfly	<i>Papilio demoleus</i> Linnaeus, 1758
7	Papilionidae	Common Mormon	<i>Papilio polytes</i> Linnaeus, 1758
8	Papilionidae	Blue Mormon	<i>Papilio polymnestor</i> Cramer, 1775
9	Papilionidae	Tailed Jay	<i>Graphium agamemnon</i> Linnaeus, 1758

10	Papilionidae	Crimson Rose	<i>Pachliopta Hector</i> Linnaeus, 1758
11	Lycaenidae	Small Cupid	<i>Chilades parrhasius</i> Fabricius, 1793
12	Lycaenidae	Aberrant Oak Blue	<i>Arhopala abseus</i> Hewitson, 1862
13	Nymphalidae	Great Egg Fly	<i>Hypolimnas bolina</i> Linnaeus, 1758
14	Nymphalidae	Common Evening Brown	<i>Melanitis leda</i> Linnaeus, 1758
15	Nymphalidae	Blue Tiger	<i>Tirumala limniace</i> Cramer, 1775
16	Nymphalidae	Common Fourring	<i>Ypthima huebneri</i> Kirby, 1871
17	Nymphalidae	Tawny Coster	<i>Acraea violae</i> Fabricius, 1775
18	Nymphalidae	Common Crow	<i>Euploea core</i> Cramer, 1780
19	Nymphalidae	Plain Tiger	<i>Danaus chrysippus</i> Linnaeus, 1758
20	Nymphalidae	Chocolate Pansy	<i>Junonia iphita</i> Cramer, 1779
21	Nymphalidae	Peacock Pansy	<i>Junonia almana</i> Linnaeus, 1758
22	Nymphalidae	Rustic	<i>Cupha erymanthis</i> Drury, 1773

The diversity of butterfly was found to be very high in the floral garden of the college campus, with Nymphalidae family being most speciose. The number of butterflies from Lycaenidae family was seen to be very low. While in the vegetable garden the number of butterflies coming under Papilionidae and Nymphalidae were found to be very high. The Botanical garden had Nymphalidae in high number. In the present study it is clearly noticed that the distribution of lepidopterans is related to the floral diversity as mentioned by other workers (Wynter Blyth, 1956 [6]. Kunte 1997) [7]. The abundance of *Eurema hecabe* in all three sites would perhaps be attributed to their polyphagous nature and they are herb feeders. This may be one of their evolutionary advantages that make them the commonest butterflies in the world.

In the study, there were no representatives from Hesperidae, it may be partly due to sampling bias, since hesperids are crepuscular habit i.e; they are active early in morning and to lesser extend in the evening, they are also active in the shade (Kunte 2000) [8]. Migratory species are common during the monsoon season so hence 6 migratory species namely *Euploea*

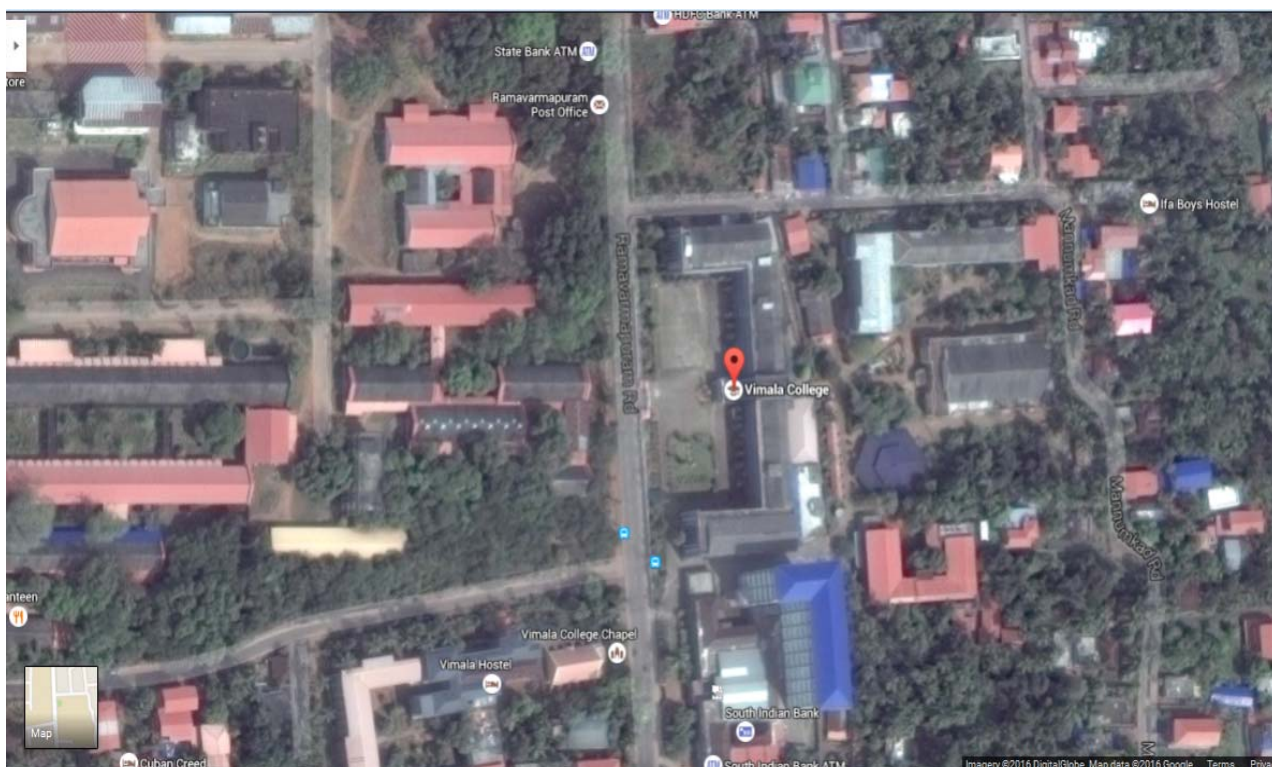
core, *Danaeus chrysippus*, *Tirumala limniace*, *Catopsilia pyranthe*, *Catopsilia pomona*, *Papilio demoleus*, have been recorded in this campus .

4. Conclusion

A total of 22 species and 4 families of butterflies were reported from 3 different sites of the campus over a period of 6 months during 2015. Among them, 4 species *Melanitis leda*, *Euploea core*, *Junonia iphita* and *Junonia almana* were endemic species to Western Ghats. The present list of butterflies is not exhaustive and future exploration will be continued to update this checklist.

5. Acknowledgement

We are grateful to, Dr. Maries.V.L, the Principal, Vimala College, Thrissur. We also acknowledge Dr Kezia Kuruvilla, the Head of the department of Zoology for her sincere support. Also thank the head of the department of Botany. We also thank the teaching and non-teaching staff of the college for their relentless support and help.



Map 1: Satellite overview of Study locality (Vimala College, Thrissur)

Butterflies of Vimala College, Thrissur



Delias eucharis
(Common Jezebel)



Catopsilia pyranthe
(Mottled Emigrant)



Eurema hecabe
(Common Grass Yellow)



Catopsilia pomona
(Common Emigrant)



Leptosia nina
(Psyche)



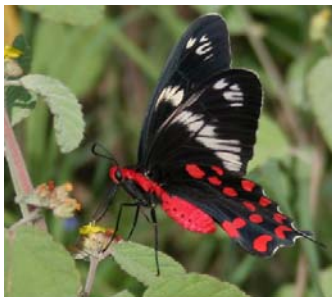
Papilio demoleus
(Lime Butterfly)



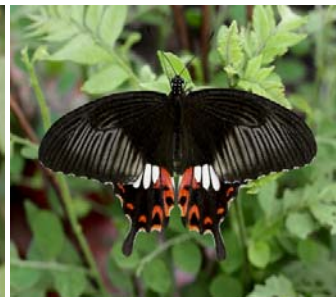
Graphium agamemnon
(Tailed Jay)



Papilio polymenstor
(Blue Mormon)



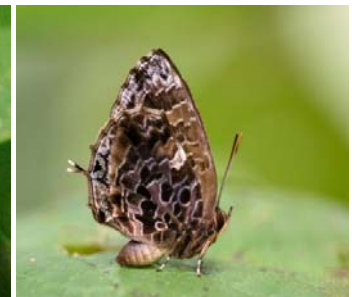
Pachliopta Hector
(Crimson Rose)



Papilio polytes
(Common Mormon)



Chilades parrhasius
(Small Cupid)



Arhopala abseus
(Aberrant Oak Blue)



Hypolimnas bolina
(Great Egg Fly)



Melanitis leda
(Common Evening Brown)



Tirumala limniace
(Blue Tiger)



Ypthima huebnerii
(Common Four Ring)



Acraea violae
(Tawny Coster)



Euploea core
(Common Crow)



Danaus chrysippus
(Plain Tiger)



Junonia iphita
(Chocolate Pancy)



Junonia almanac
(Peacock Pancy)

Cupha erymanthis
(Rustic)

6. References

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