A Checklist Of Butterflies From Vikram Vatika, Ujjain, Madhya Pradesh

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ABSTRACT

The butterflies are the most tantalizing and beautiful creatures among the insect group, they are an often regarded as flagship species. In terms of indicator organisms for biodiversity studies on butterflies are an excellent choice as they are common almost everywhere, attractive and easy to observe. A total of 15 genera and 17 species belonging to 5 families were recorded from Vikram Vatika Ujjain. Out of these individuals the family Nymphalidae were dominant with 7 species under 6 genus followed by the family Pieridae with 4 species under 4 genus , the family Lycaenidae with 3 species under 3 genus , family Papilionidae with 2 species under 1 genus and family Hesperiidae with 1 species under 1 genus.

Keywords: Butterflies, Diversity, Ujjain, Madhya Pradesh

INTRODUCTION

Lepidoptera is the second largest order in the class insecta, they are regarded as one of the important component of biodiversity (New and Collins, 1991) and are the second largest order among insects made up of approximately 150,000 species so far known to the literature. These include moth (Hetrocera) and Butterflies (Rhopalocera) of which 70,820 are butterflies according to more recent estimate (Shields, 1989). Although several estimate have been made from time to time, ranging from a low of 13,000 (Owen, 1971) to the maximum of 20,000 (Vane Wrights, 1978) earlier. The butterflies are sensitive biota which gets severely affected by environmental changes (Pollard, 1992). They are the most tantalizing and beautiful creatures among the insect group, they are an often regarded as flagship species, these are perhaps the most studied and well known insect groups. In terms of indicator organisms for biodiversity studied on butterflies are an excellent choice as they are common almost everywhere, attractive and easy to observe.

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Butterflies are broadly considered as a potent ecological indicator (Erhardt 1985; Brown, 1991; Kremen, 1992) and are sensitive to the temperature, humidity and light levels and also to the habitat disturbance (Balmer and Erhardt, 2000).

Material and Methods

Ujjain is located at 23.182778°N and 75.777222°E. It has an average elevation of 491 metres.

Figure-1. The study area

The survey on butterflies was carried out at the Vikram Vatika on sunny days from August 2014 to November 2014 and August 2015 to November

**Table-1. Butterflies recorded in Vikram Vatika, Ujjain.**

S.No.	Family	Genus	Binomial name	Common name
1	Nymphalidae	Junonia	*Junonia lemonias*	Lemon pansy
2	Nymphalidae	Junonia	*Junonia hierta*	Yellow pansy
3	Nymphalidae	Danaus	*Danaus chrysippus*	Plain tiger
4	Nymphalidae	Hypolimnas	*Hypolimnas bolina*	Great eggfly
5	Nymphalidae	Tirumala	*Tirumala limniace*	Blue tiger
6	Nymphalidae	Melanitis	*Melanitis leda*	Common evening brown
7	Nymphalidae	Phalantha	*Phalantha phalantha*	Common leopard
8	Pieridae	Belenois	*Belenois aurota*	Indian pioneer
9	Pieridae	Eurema	*Eurema hecabe*	Common grass yellow
10	Pieridae	Catopsilia	*Catopsilia pyranthe*	Mottled emigrant
11	Pieridae	Ixias	*Ixias marrianne*	White orange tip
12	Papilionidae	Graphium	*Graphium doson*	Common jay
13	Papilionidae	Graphium	*Graphium agamemnon*	Tailed jay
14	Lycaenidae	Chilades	*Chilades parrhassius*	Small cupid
15	Lycaenidae	Tarucus	*Tarucus nara*	Striped pierrot
16	Lycaenidae	Zizina	*Zizina otis*	Lesser grass blue
17	Hesperiidae	Hasora	*Hasora chromus*	Common banded awl

2015. Collection of specimen was avoided and photographic documentation was done, butterflies were identified by various field guides (Kunte 2000, Evans 1932 and Wynter- Blyth 1957).

Results & Discussion

A total of 15 genus and 17 species belonging to 5 families were recorded (Table1). Out of these individuals of the family Nymphalidae were found to be dominant with 7 species under 6 genus followed by the family Pieridae with 4 species under 4 genus, the family Lycaenidae with 3 species under 3 genus, family Papilionidae with 2 species under 1 genus and family Hesperiidae with 1 species under 1 genus. It was concluded that Vikram Vatika supports a butterfly community where in Nymphalidae individuals exerting dominance over the others. The most important threat to butterfly diversity is urbanization. Complete there is a lack of food and reduced chances to increase the progeny.
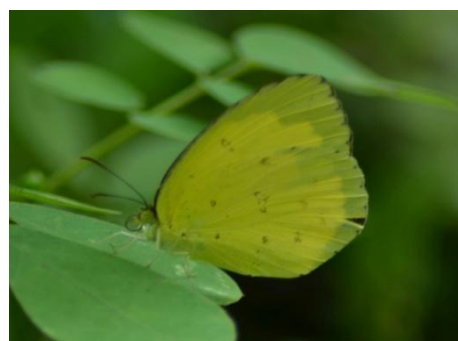
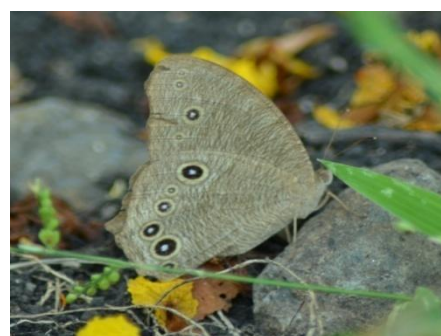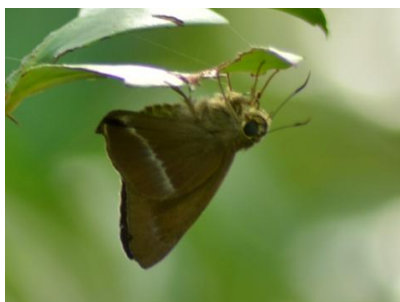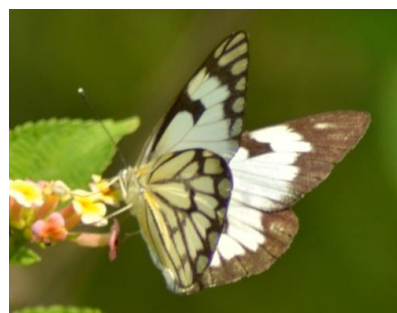**Figure-2. Photographs of some Butterflies recorded in Vikram Vatika**
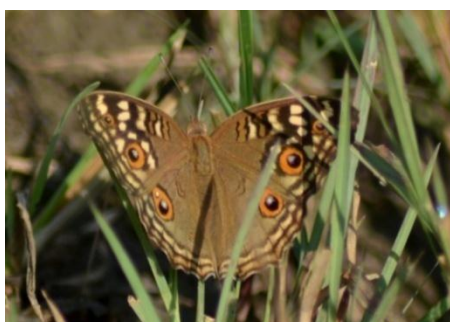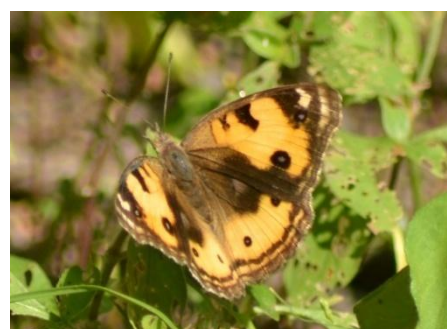
Junonia hierta

Eurema hecabe

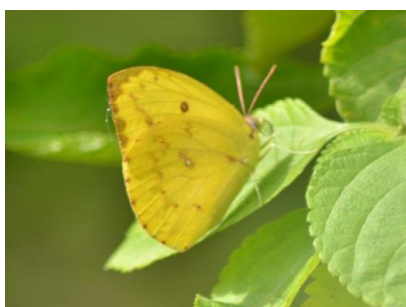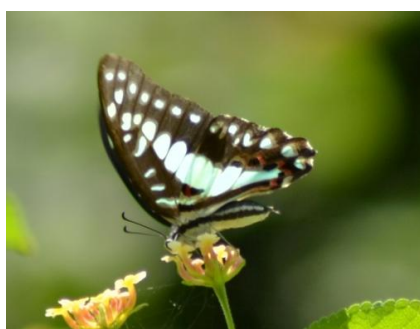*Junonia lemonias*

Melanitis leda

Graphium agememnon

Phalantha phalantha

Hasora chromus

Belenois aurota

Catopsilia pyranthe

Tirumala limniace

Hypolimnas bolina

Human activities have an undeniably strong influence on the biodiversity of all existing species. Even though park, sanctuaries and other protected areas are specifically kept off limits for human, the effect of pollution which is a direct result of urbanization nevertheless affects biodiversity.

Conclusion

India has a rich butterfly fauna but due to reason such as habitat destruction fire, use pesticides and illegal collection for trade many species have become very rare. The butterfly diversity study suggested that there are number of different flowering species exist in the study area. We hope that this will be useful in documenting the rich diversity of Vikram Vatika Ujjain.

Graphium doson

Acknowledgement

Conflict of Interests

Authors declare that there is no conflict of interests regarding the publication of this paper.

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