

Lepidoptera of Jijamata Mahavidyalaya Buldhana, Maharashtra, India

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Abstract

Jijamata Mahavidyalaya situated is located in the Satpuda mountain range, in the Vidarbha region. The fauna of butterfly from Jijamata Mahavidyalaya campus and its surrounding is discussed. Total 40 species of butterflies were recorded in this study. This includes 1 species of Hesperidae, 4 Lycaenidae, 25 Nymphalidae, 5 Papilionidae and 5 Pieridae. Out of these, three species are considered as Least Concern by IUCN red list. Butterflies were sampled in span of year of January 2023 to December 2023 in the campus area of 23 acres consisting of diverse flora, fauna and water bodies in and around the campus area. This study supports for the conservation of biodiversity around.

Keywords: Butterfly diversity, Satpuda mountain range, Buldhana, Vidarbha

Introduction

Buldhana, the hill station of Vidarbha region in the state of Maharashtra. Located in the Satpuda mountain range is surrounded by the rich floral and faunal diversity. Which has the presence Jijamata Mahavidyalaya's campus. This study of variable butterfly species in the campus of Jijamata Mahavidyalaya helps us to study the diversity of butterfly in and surrounding of this prestigious campus. Which further pushes us to conserve the biodiversity for further conservation of these available species.

Methodology

Study area: The location coordinates of campus site is 20.5266360 Latitude and 76.1845097 Longitude with elevation of 639 meter. This institution comprises of various floral diversity having botanical garden within it. Located around 20.7 km south-west of Dnyanganga Wildlife Sanctuary and 3.8 km north to Yelgaon dam. The campus area also comprises of two water bodies in there. Surrounding area of Sangam lake opposite to college campus also contain vast diversity of local living species. The collage campus area is about 23 acres of land in urban area of Buldhana city as shown in image 1.

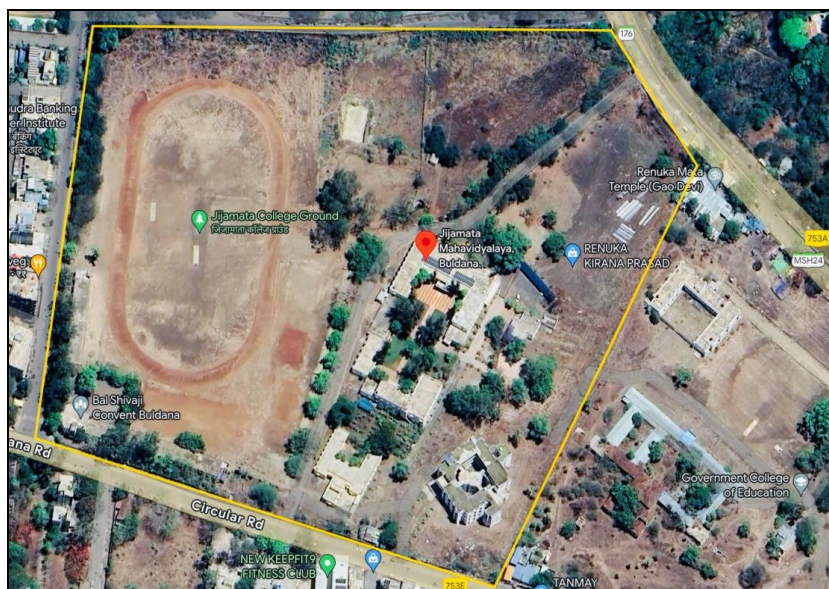


Image 1: Satellite image of Jijamata Mahavidyalaya Campus

Methods: Activity of butterflies were recorded near flowering plants between 08:00 to 11:00 hours and 15:00 to 17:00 hours from January 2023 to December 2023. They are observed by binoculars and camera to note down the morphological structures. The use of Butterflies of India by Isaac Kehimkar along with the use of online resources like iNaturalist were in use for correct identification of the species.

Observation

During the course study in the campus area of Jijamata Mahavidyalaya reveals the occurrence or presence of 40 species of Class Lepidoptera belonging to 5 different families. Presence of these different butterflies are recorded at different spots around the campus.

Figure 1- Pie chart represents the occurrence percentage of species among five families. Figure 2- Bar graph

representing the number of species belonging to particular Family. Table 1- consists of number of Families and

recorded number of species along with there occurrence percentage.

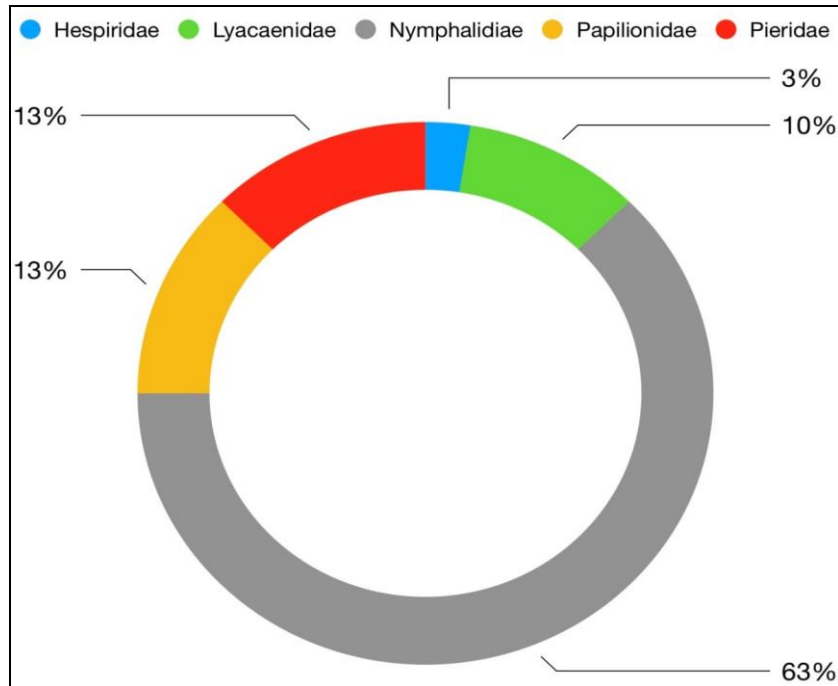


Fig 1: Pie chart represents the percentage occurrence of species among five families

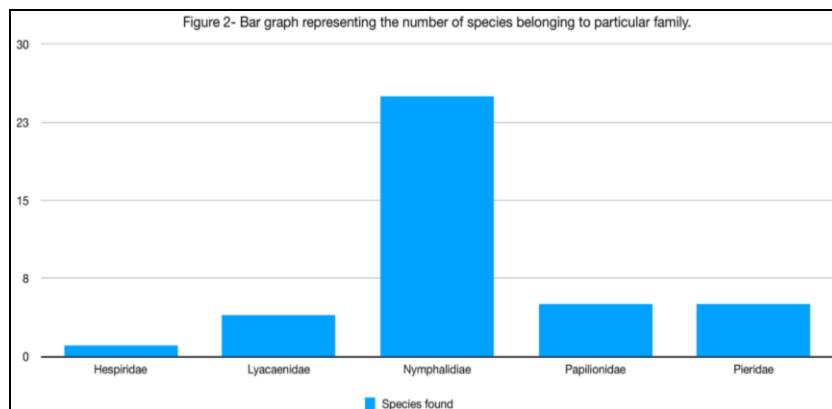


Fig 2: Bar graph representing the number of species belonging to particular Family

Table 1: Number of families, recorded number of species along with occurrence percentage

Families	Number of species recorded	% Occurence
Hesperidae	1	3 %
Lyacaenidae	4	10 %
Nymphalidae	25	63 %
Papilionidae	5	13 %
Pieridae	5	13 %

Result

List of the butterflies observed in the campus with there common name, scientific name, family and IUCN status are

mentioned in Table 2. Around 40 different species belonging to Class- Lepidoptera from 5 different families are mentioned below.

Table 2: Common name, scientific name, families and IUCN status of recorded species

Sr. No.	Common name	Scientific name	Family	IUCN Status
1	Blue admiral butterfly	<i>Kaniska canace</i>	Nymphalidae	NE
2	Lemon pansy butterfly	<i>Junonia lemonias</i>	Nymphalidae	NE
3	Indian red admiral	<i>Vanessa indica</i>	Nymphalidae	NE
4	Blue pansy	<i>Junonia orithya</i>	Nymphalidae	NE
5	Common banded peacock	<i>Papilio crino</i>	Papilionidae	NE

6	Indian tortoiseshell	<i>Aglais caschmirensis</i>	Nymphalidae	NE
7	Chestnut tiger	<i>Parantica sita</i>	Nymphalidae	NE
8	Common sailor butterfly	<i>Neptis hylas</i>	Nymphalidae	NE
9	Common Hedge Blue	<i>Acytolepis pusa</i>	Lycaenidae	NE
10	Chocolate pansy butterfly	<i>Junonia iphita</i>	Nymphalidae	NE
11	Common treebrown	<i>Lethe rohria</i>	Nymphalidae	NE
12	Large Three-ring	<i>Ypthima nareda</i>	Nymphalidae	NE
13	Club beak butterfly	<i>Libythea myrrha</i>	Nymphalidae	NE
14	Common windmill butterfly	<i>Byasa polyeuctes</i>	Papilionidae	NE
15	Common baron	<i>Euthalia aconthea</i>	Nymphalidae	NE
16	Dark blue tiger butterfly	<i>Tirumala septentrionis</i>	Nymphalidae	NE
17	Orange oakleaf butterfly	<i>Kallima inachus</i>	Nymphalidae	NE
18	Common emigrant	<i>Catopsilia pomona</i>	Pieridae	NE
19	Dark grass yellow butterfly	<i>Eurema hecabe</i>	Pieridae	NE
20	Painted lady	<i>Vanessa cardui</i>	Nymphalidae	LC
21	Common bushbrown	<i>Mycalesis perseus</i>	Nymphalidae	NE
22	Fulvous pied flat	<i>Pseudocoladenia dan</i>	Hesperiidae	NE
23	Pale clouded yellow	<i>Colias hyale</i>	Pieridae	NE
24	Common castor butterfly	<i>Ariadne merione</i>	Nymphalidae	NE
25	Glassy bluebottle butterfly	<i>Graphium cloanthus</i>	Papilionidae	NE
26	Pioneer white butterfly	<i>Belenois aurota</i>	Pieridae	LC
27	Small copper	<i>Lycaena phlaeas</i>	Lycaenidae	NE
28	Great satyr	<i>Aulocera padma</i>	Nymphalidae	NE
29	Purple sapphire butterfly	<i>Heliophorus epicles</i>	Lycaenidae	NE
30	Queen of Spain fritillary	<i>Issoria issaea</i>	Nymphalidae	NE
31	Grey pansy butterfly	<i>Junonia atlites</i>	Nymphalidae	NE
32	Spotted rustic	<i>Phalanta phalantha</i>	Nymphalidae	LC
33	Common guava blue butterfly	<i>Deudorix isocrates</i>	Lycaenidae	NE
34	Spangle butterfly	<i>Papilio protenor</i>	Papilionidae	NE
35	Common mapwing	<i>Cyrestis thyodamas</i>	Nymphalidae	NE
36	Indian cabbage white butterfly	<i>Pieris canidia</i>	Pieridae	NE
37	Blue tiger	<i>Tirumala limniace</i>	Nymphalidae	NE
38	Striped tiger butterfly	<i>Danaus genutia</i>	Nymphalidae	NE
39	Indian fritillary	<i>Argynnis hyperbius</i>	Nymphalidae	NE
40	Common mormon	<i>Papilio polytes</i>	Papilionidae	NE

NE: Not Evaluated, LC: Least Concerned

Conclusion

This survey in brief of Butterflies, informs us about the presence, survival, availability and diversity of Lepidoptera in Buldhana city region, along with their IUCN status to record their further presence. Overall 40 species from 5 different families were recorded. Out of 40 species total recorded, *Vanessa cardui* (Painted lady), *Belenois aurota* (Pioneer white butterfly) and *Phalanta phalantha* (Spotted rustic butterfly) are considered as Least Concern (LC) by the IUCN redlist organization and are found in prestigious campus of Jijamata Mahavidyalaya, Buldhana, Maharashtra, India.

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