

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)
Department of Zoology
Academic Year: 2025 -26

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Date: 14/07/2025

NOTICE

Subject: Field Project for B.Sc. III (Major) Students as per NEP 2020

All students of **B.Sc. III (Major)** are hereby informed that, as per the NEP 2020 guidelines, **Field Projects** have been included in your syllabus. This project carries **2 credits** and is **compulsory** for all students. You are instructed to follow the **guidelines provided by the college** for successful completion of the project.

The **list of students and their allotted guides** is provided below. Kindly refer to the list and complete your field projects **on or before 15th September 2025**. For any queries or clarification, contact your allotted guide or the project coordinator.



Dr. G. K. Sontakke

HEAD
DEPARTMENT OF ZOOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

"Dissemination of Education for Knowledge, Science and Culture"
 -Shikshanmaharshi Dr. Bapuji Salunkhe
 Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)
Department of Zoology
B. Sc. III (Major) Semester-V
Academic Year: 2025 -26

Field Project Guide and student list

Sr. No.	Roll No.	Name of the Student	Name of Guide
1.	8332	Adagale Paras Charudatta	Dr. G. K. Sontakke
2.	8333	Mahekar Pruthviraj Tatoba	
3.	8334	Mane Pranoti Prakash	
4.	8335	Mane Sangramsingh Sandip	Dr. T. C. Gaupale
5.	8336	Momin Shireen Sajid	
6.	8337	More Sanika Sanjay	
7.	8338	Nadaf Muskan Mohammad Rafiq	Mr. G. H. Fadake
8.	8339	Navale Rutuja Pradeep	
9.	8340	Patil Anushka Rajgonda	
10.	8341	Patil Gouri Vijay	Ms. N. A. Patel
11.	8342	Patil Madhuri Sanjay	
12.	8343	Patil Sayali Ashok	
13.	8344	Patil Suhani Suraj	Ms. P. S. Shetfalkar
14.	8345	Shirgave Rutuja Bajarang	
15.	8346	Todkar Shravani Sanjay	
16.	8347	Vira Sachin Khot	Ms. N. A. Jadhav
17.	8348	Bariya Avinaben Vinodbhai	
18.	8349	Kamble Ketan Keraba	
19.	8350	Kamble Ratndip Rajaram	Ms. P. R. Gaikwad
20.	8351	Powar Yash Mahadev	
21.	8436	Patil Dhananjay Anandrao	
22.	8461	Chavan Sakshi Madhav	Dr. T. C. Patil


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Department of Zoology
B. Sc. III (Major) Semester-V
Academic Year: 2025 -26

Field Project Topics

Sr. No.	Roll No.	Name of the Student	Name of Guide
1.	8332	Adagale Paras Charudatta	Study of insect diversity in the Vivekanand college campus Kolhapur, Maharashtra.
2.	8333	Mahekar Pruthviraj Tatoba	Study of insect diversity in the Vivekanand college campus Kolhapur, Maharashtra
3.	8334	Mane Pranoti Prakash	To study Body Mass Index (BMI) from the population of wathar village
4.	8335	Mane Sangramsingh Sandip	The study of types of fishes in Kolhapur fish market
5.	8336	Momin Shireen Sajid	-----
6.	8337	More Sanika Sanjay	Survey and Analysis of insect pests in crop fields of Pattan Kodoli, Maharashtra
7.	8338	Nadaf Muskan M. R.	Epidemiological survey of diseases in domestic animals of Kolhapur district
8.	8339	Navale Rutuja Pradeep	Epidemiological survey of diseases in domestic animals of Kolhapur district
9.	8340	Patil Anushka Rajgonda	Dairy farm management and sustainable dairy farming
10.	8341	Patil Gouri Vijay	-----
11.	8342	Patil Madhuri Sanjay	Study of spider species in Waghve and Shinganapur village of Kolhapur District
12.	8343	Patil Sayali Ashok	Study of spider species in Waghve and Shinganapur village of Kolhapur District
13.	8344	Patil Suhani Suraj	Avian diversity assessment of Rankala Lake Rajaram Lake and Shahu Lake
14.	8345	Shirgave Rutuja Bajarang	Avian diversity assessment of Rankala Lake Rajaram Lake and Shahu Lake
15.	8346	Todkar Shravani Sanjay	Study on insect diversity from Mahaveer Garden Kolhapur.
16.	8347	Vira Sachin Khot	Study on insect diversity from Mahaveer Garden Kolhapur
17.	8348	Bariya Avinaben Vinodbhai	Study of butterfly diversity in hutatma Smarak, Pratibha Nagar, Kolhapur
18.	8349	Kamble Ketan Keraba	Study of Butterfly species in region of Kolhapur, Town Hall
19.	8350	Kamble Ratndip Rajaram	Survey of breeds of cattles from Satarde and pungao village of Kolhapur district
20.	8351	Powar Yash Mahadev	Survey of breeds of cattles from Satarde and pungao village of Kolhapur district
21.	8436	Patil Dhanajay Anandrao	-----
22.	8461	Chavan Sakshi Madhav	Insect diversity in the city Gardens and parks in Kolhapur


Dr. G. K. Sontakke

Head
Department of Zoology
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(An Empowered Autonomous Institute)

A FIELD PROJECT REPORT ON:
**"STUDY OF BUTTERFLY DIVERSITY IN HUTATMA SMARAK, PRATIBHA
NAGAR, KOLHAPUR"**



(EMPOWERED AUTONOMOUS)
Estbl. 1964

SUBMITTED TO:

**Department of Zoology,
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)**

in the Partial Fulfillment of Bachelor of Science in Zoology

Name - Avinaben Vinodbhai Bariya

Roll no. - 8348

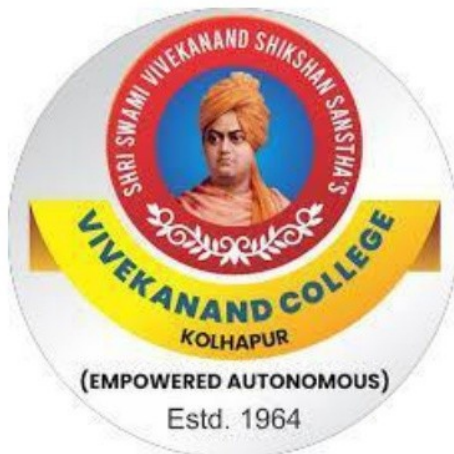
Class B. Sc. III

UNDER THE GUIDANCE OF

**Ms. Pratibha Gaikwad
Assistant Professor,
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)**

Academic Year: 2023-2024

A FIELD PROJECT REPORT ON:
**“STUDY OF BUTTERFLY DIVERSITY IN HUTATMA SMARAK, PRATIBHA
NAGAR, KOLHAPUR”**



SUBMITTED TO:

**Department of Zoology,
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)**

in the Partial Fulfilment of Bachelor of Science in Zoology

Name - Avinaben Vinodbhai Bariya

Roll no.- 8348

Class B. Sc. III

UNDER THE GUIDANCE OF

**Ms. Pratiksha Gaikwad
Assistant Professor,
Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)**

Academic Year: 2025-2026

DECLARATION

I declare that the field project entitled, "**Study of Butterfly Diversity in Hutatma Smarak, Pratibha Nagar, Kolhapur**" is submitted by me under the supervision of **Ms. Pratiksha Gaikwad**, Assistant Professor, Vivekanand College, Kolhapur (An Empowered Autonomous Institute).

It is our original work. The empirical findings in this field project are based on the data collected by us and it is authenticable to the best of our knowledge. The presented matter is not copied from any other source.

Place *Kolhapur.*

Date: *13-10-2025*



Ms. Avinaben Vinodbhai Bariya

CERTIFICATE

This is to certify that the field project entitled, “Study of Butterfly Diversity in Hutatma Smarak, Pratibha Nagar, Kolhapur” being submitted herewith for the degree of **Bachelors of Zoology**, Vivekanand College, Kolhapur (An Empowered Autonomous Institute) Affiliated to Shivaji University, Kolhapur, under the faculty of science is the result of the original work completed by **Ms. Avinaben Vinodbhai Bariya** under my supervision and guidance and to the best of my knowledge and belief, the work embodied in this project has not formed earlier.

Place: Kolhapur

Date: 13-10-2025

Ms. Pratiksha Gaikwad

Project Supervisor

Dr. G. K. Sontakke
Head

Department of Zoology
Vivekanand College Kolhapur
(An Empowered Autonomous Institute)

Examined

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Geadar
15/10/2025

Examiner

ACKNOWLEDGEMENT

I wish to express my deepest sense of gratitude to my field project supervisor **Ms. Pratiksha Gaikwad**, for her continuous help and valuable guidance during the entire period of my project work. It is a genuine pleasure to express my deep sense of thanks to **Dr. G. K. Sontakke**, Head, Department of Zoology, Vivekanand College Kolhapur (An Empowered Autonomous Institute) for administrative help and encouragement during the project work. I express my profound thanks to **Dr. R. R. Kumbhar** Principal, Vivekanand College Kolhapur (An Empowered Autonomous Institute) for his constant support and inspiration.

I am also thankful to other faculties of department of zoology who have directly or indirectly guided and helped me in the field project work.

I am also thankful to non-teaching staff for their constant co-operation during field project work.

Ms. Avinaben Vinodbhai Bariya

INTRODUCTION

Butterflies are one of the most beautiful and useful insects in our ecosystem. They belong to the order Lepidoptera, which means “scaly wings” in Greek (lepidos = scales and pteron = wings). Their wings are covered with tiny colored scales that give them bright and attractive patterns. When we touch a butterfly’s wings, some of these fine scales come off like powder. If too many scales are lost, the butterfly may find it hard to fly.

There are about 20,000 species of butterflies in the world, and around 1,500 species are found in India. This shows that India has great butterfly diversity because of its rich climate and natural habitats.

Butterflies are very important for the environment. They help in pollination, which means they transfer pollen from one flower to another, helping plants to produce fruits and seeds. They are also indicators of a healthy ecosystem, meaning their presence shows that nature is clean and balanced. Scientists also study butterflies because the colours and patterns on their wings help them understand evolution, genetics, and environmental changes.

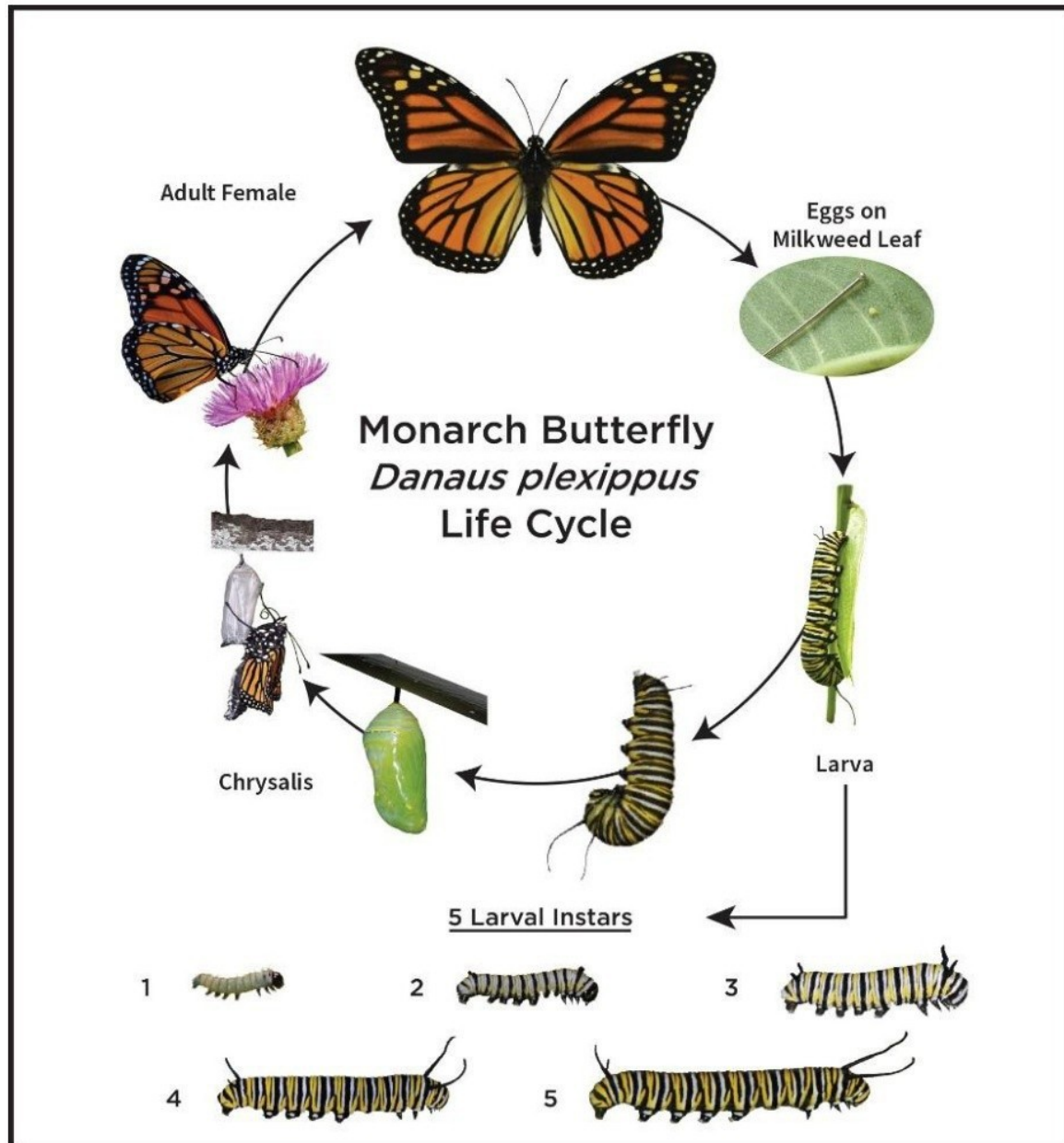
Butterflies are known for their amazing life cycle, which includes four stages: egg, larva (caterpillar), pupa (chrysalis), and adult. This process is called complete metamorphosis, meaning they change their body shape completely from one stage to another.

1. Egg Stage: The butterfly starts its life as an egg. Female butterflies lay eggs mostly on the leaves of plants. These eggs are very small and can be round, oval, or cylindrical in shape. Inside the egg, a tiny caterpillar begins to grow.

2. Larva or Caterpillar Stage: After some time, the egg hatches and a caterpillar comes out. The main job of the caterpillar is to eat and grow. It eats the leaves on which it was born and sheds its skin 4–5 times as it grows bigger. This stage helps the butterfly store food for later stages.

3. Pupa or Chrysalis Stage: When the caterpillar is fully grown, it stops eating and forms a protective covering called a pupa or chrysalis. Inside the pupa, a wonderful transformation happens — the caterpillar slowly changes its body parts and becomes a butterfly. This process can take from a week to a month.

4. Adult Butterfly Stage: Finally, the adult butterfly comes out of the pupa. At first, its wings are soft and folded, but after some time they dry and the butterfly is ready to fly. The adult butterfly's main purpose is to mate and lay eggs, starting the life cycle again. Most adult butterflies live for one or two weeks, though some species can live longer by hibernating in winter.



In conclusion, butterflies are not only beautiful but also essential for nature. They help in pollination, add colour to our world and help scientists to study life and evolution. Protecting butterflies means protecting our environment.

OBJECTIVE

1. To study and document the butterflies in Hutatma Smarak, Pratibha Nagar, Kolhapur.
2. To study the various species of Butterflies.

REVIEW OF LITERATURE

The study of Indian butterflies has been enriched by several significant contributions over the years. Evans (1932) produced one of the earliest comprehensive works, *The identification of Indian Butterflies*, which remains a foundational text for butterfly taxonomy and identification. His book systematically described numerous species, providing detailed keys for their recognition, making it a cornerstone for both amateur and professional lepidopterists.

Haribal (1992) expanded this understanding through her work, *The Butterflies of Sikkim Himalaya and Their Natural History*. Her research focused on the diversity and ecology of Himalayan butterflies, emphasizing their behaviour, habitat preferences, and seasonal variations. This regional study highlighted the ecological richness of Sikkim and the importance of conservation in fragile mountain ecosystems.

Gaonkar (1996) conducted a biodiversity assessment in *Butterflies of the Western Ghats, India (including Sri Lanka)*, focusing on one of the world's biodiversity hotspots. His work provided valuable data on species distribution and conservation status, stressing the urgency of protecting butterfly habitats in the Western Ghats due to increasing anthropogenic pressures.

Kunte (2000) offered a modern synthesis in *Butterflies of Peninsular India*, combining field observations, photographs, and ecological insights. His book integrated taxonomic information with behaviour, life history, and distributional data, serving as a vital reference for both researchers and conservationists.

Together, these works provide a comprehensive understanding of Indian butterfly diversity, distribution, and conservation needs. They collectively form the scientific basis for ongoing studies on butterfly ecology, systematics and environmental monitoring across India's varied biogeographical zones.

Umami et al. (2024) studied the diversity of butterflies in the Kedung Klurak Tourist Area, Mojokerto District, East Java, Indonesia. Their research highlighted that the area supports a wide range of butterfly species due to its varied habitats and vegetation, indicating that environmental heterogeneity plays a major role in sustaining butterfly diversity.

Patil and Tiple (2016) conducted a study on the diversity of butterflies in Mayureshwar Wildlife Sanctuary, Pune District, India. They recorded a rich butterfly

fauna, emphasizing that semi-arid regions also support significant butterfly diversity when suitable host plants and nectar sources are available.

Charaple and Bharmal (n.d.) examined insect diversity in the Shahuwadi Tahsil of the Western Ghats, focusing on the importance of forest ecosystems in maintaining insect populations. Their study showed that the Western Ghats, being a biodiversity hotspot, host numerous insect species, including many butterfly species.

Naikwadi, Takalakar, and Patil (n.d.) studied butterfly diversity from gardens and parks of Pune City, Maharashtra. They found that urban green areas also serve as important habitats for butterflies, providing feeding and breeding grounds, which highlights the ecological value of urban biodiversity.

Tiple and Khurad (n.d.) explored butterfly species diversity, habitat distribution, and seasonal variation in and around Nagpur City, Central India. Their study revealed that butterfly abundance and diversity fluctuate seasonally, mainly influenced by temperature, rainfall, and vegetation availability.

Similarly, Tiple, Khurad, and Dennis (n.d.) analyzed butterfly diversity in relation to human impact on an Indian university campus. They reported that areas with lower human disturbance supported higher butterfly diversity, suggesting that conservation of even small, less-disturbed patches within urban areas can help maintain butterfly populations.

Khyade et al. (Year) conducted a study on various methods of studying butterflies, emphasizing the importance of accurate detection and monitoring techniques to assess butterfly abundance and population size. The study compared methods such as transect counts and mark–release–recapture sampling, highlighting that while transect counts are easy and cost-effective, they often underestimate true population size due to imperfect detection. This research provides a foundational understanding of quantitative techniques essential for butterfly biodiversity assessments.

Pawar et al. (2021) prepared a checklist of moth fauna from Panvel, Navi Mumbai, documenting 45 species from 11 families and 6 superfamilies. Their study focused on the impact of anthropogenic activities and habitat changes near developing areas such as the Navi Mumbai International Airport. The work serves as a baseline for future faunal studies and contributes valuable information about the diversity and distribution of moth species in an urbanizing landscape.

Di Mauro, Dietz, and Rockwood (2007) examined the effect of urbanization on butterfly species diversity across rural, suburban, and urban butterfly gardens in the Washington D.C. metropolitan area. Their findings indicated that butterfly diversity decreases with increasing urbanization, particularly in medium and large gardens. The study suggests that habitat fragmentation and human population density negatively influence local butterfly populations, but also highlights the role of urban gardens in supporting generalist species.

Overall, these studies collectively underscore the significance of habitat quality, monitoring methods, and urban impacts on butterfly and moth diversity. They provide valuable insights for designing conservation strategies and understanding the dynamics of lepidopteran populations in changing environments. These studies demonstrate that butterfly diversity is influenced by multiple factors such as habitat type, vegetation, climate, and human interference. Conservation of natural and semi-natural habitats, including urban green spaces, plays a crucial role in sustaining butterfly populations and overall ecosystem health.

METHODOLOGY

The study on butterflies was done in Hutatma Smarak, Pratibha Nagar, Kolhapur. The observation period was for about three months and more. I used my smartphone camera to take clear photos of different butterflies whenever I saw them.

I did not harm or catch any butterfly. All the photos were later used to identify the butterfly species with the help of books and online sources.

During my visits, I also noted the time, weather, and type of plants around the area to understand where butterflies are mostly found. This helped me to know the variety and behaviour of butterflies in Hutatma Smarak, Pratibha Nagar Kolhapur.



OBSERVATION AND RESULT

The species of butterflies documented from the Hutatma Smarak, Pratibha Nagar, Kolhapur were arranged by their families. The study is also capable of describing the common names and scientific names of the butterflies, along with identification key. Total 13 butterfly species belonging to 3 families were recorded during study. A butterfly list is given below in table.

Sr. No.	Common Name	Genus	Species	Family
1.	Psyche	<i>Leptosia</i>	<i>L.nina</i>	Pieridae
2.	Common Grass Yellow	<i>Eurema</i>	<i>E.hecabe</i>	Pieridae
3.	Common Emigrant	<i>Catopsilia</i>	<i>C.pomona</i>	Pieridae
4.	Blue Moon	<i>Hypolimnas</i>	<i>H.bolina</i>	Nymphalidae
5.	Great Eggfly	<i>Hypolimnas</i>	<i>H.bolina</i>	Nymphalidae
6.	Lemon Pancy	<i>Junonia</i>	<i>J.lemonias</i>	Nymphalidae
7.	Common Four Ring	<i>Ypthima</i>	<i>Y.huebneri</i>	Nymphalidae
8.	Common Crow	<i>Euploea</i>	<i>E.core</i>	Nymphalidae
9.	Palmfly	<i>Elymnias</i>	<i>E.caudata</i>	Nymphalidae
10.	Pale Grass Blue	<i>Pseudozizeeria</i>	<i>P.maha</i>	Lycaenidae
11.	Common Cerulean	<i>Jamides</i>	<i>J.celano</i>	Lycaenidae
12.	Zebra Blue	<i>Leptotes</i>	<i>L.plinius</i>	Lycaenidae
13.	Pea Blue	<i>Lampides</i>	<i>L.boeticus</i>	Lycaenidae

1) Psyche

Scientific Classification

Scientific Name – *Leptosia nina*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Pieridae

Genus – *Leptosia*

Species – *L.nina*

Identification

Upper side: Wings are mostly white. The front wing has a black tip, a big black spot, and some tiny black dots. The back wing is plain white with a very thin black edge.

Under side: Wings are white with fine greenish lines and tiny dots. There's also a black spot on the front wing and thin black marks along the edges of both wings

Other details: The antennae are dark brown

with white spots. The body is white, and the female usually has slightly wider black markings on the front wings.

Host Plant - *Capparis zeylanica*, *Cleome viscosa* (Capparidaceae family)

2) Common Emigrant

Scientific Classification

Scientific Name – *Catopsilia pomona*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Pieridae

Genus – *Catopsilia*

Species – *C.pomona*

Identification

Male color: The upper side of the male's wings is mostly white, sometimes with a yellow (sulphur-yellow) shade near the base or spread over the wings.

Forewing pattern: The front edge and tip (apex) of the forewing are black, with the black border becoming narrower toward the lower side.

Hindwing pattern: Usually plain and

without markings, though some butterflies have tiny black dots near the edge.

Host Plant – *Cassia*, *Butea monosperma*, *Bauhinia*, *Pterocarpus indicus*, *Senna alata*, *Sesbania*.

3) Blue Moon Butterfly

Scientific Classification

Scientific Name – *Hypolimnys bolina*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Hypolimnys*

Species – *H.bolina*

Identification

Colour & Spots – The top of the male's wings is shiny black with three big white spots that shine blue-violet in sunlight.

Underside – The bottom side is brown with white bands and no shiny (ultraviolet) glow.

Wing Shape – Males have lighter bodies and longer, slimmer wings compared to

females, which helps them fly more easily.

Host Plant - *Portulaca oleracea*, *Ipomoea spp.*, *Amaranthus spp.*

4) Common Grass Yellow

Scientific Classification

Scientific Name – *Eurema hecabe*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Pieridae

Genus – *Eurema*

Species – *E.hecabe*

Identification

Very Small Size – Its wingspan is only about 1 to 1.5 inches, the tiniest yellow butterfly in New England.

Bright Yellow Colour – It's a clear, shiny (chrome) yellow on both the top and bottom of the wings.

Distinct Black Marks – The black edges on the wings and the spots

underneath help you tell it apart from similar butterflies like the clouded sulphur or sleepy orange.

Host Plant - *Cassia tora*, *Cassia occidentalis*, *Senna alata* (Fabaceae family)

5) Pale Grass Blue

Scientific Classification

Scientific Name – *Pseudozizeeria maha*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Lycaenidae

Genus – *Pseudozizeeria*

Species – *P.maha*

Identification:

Male – Top side is shiny light blue with narrow dark edges; underside is brown-grey with many small black spots outlined in white.

Female – Top side mostly brown-black with just a faint blue near the wing base; underside is darker brown with bigger, clearer white-edged spots.

Body details – Antennae are dark with white rings; the male's thorax and abdomen may have a little blue fuzz, which the female lacks.

Host plant: *Oxalis corniculata*, *Indigofera* spp.

6) Great Eggfly

Scientific Classification

Scientific Name – *Hypolimnias bolina*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Hypolimnias*

Species – *H. bolina*

Identification

Female butterflies show a lot of variation because of both genes (genetic polymorphism) and environmental effects (phenotypic plasticity). Different color patterns — some females have white, orange, or blue markings on the top side of their wings. Temperature affects color — butterflies that grow in cooler places or seasons

usually have darker colors.

Host Plant - *Portulaca oleracea*, *Ipomoea*, *Amaranthus*

7) Lemon Pancy

Scientific Classification

Scientific Name – *Junonia lemonias*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Junonia*

Species – *J. lemonias*

Identification

Appearance – Brown wings with many eyespots plus black and yellow spots and lines on top; the underside is dull brown with wavy lines and spots.

Wet season – Bright, clear markings and slightly rounder wings.

Dry season – Pale, faint markings with more jagged wing edges, which help it hide

among dry leaves.

Host Plant - *Ruellia tuberosa*, *Barleria prionitis*, *Asystasia gangetica* (Acanthaceae family)

8) Common Four Rings

Scientific Classification

Scientific Name – *Ypthima huebneri*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Ypthima*

Species – *Y. huebneri*

Identification

Top side – Grey-brown with one big black-and-yellow eyespot on the forewing and usually 2–3 smaller eyespots on the hindwing.

Underside – Grey-white with short brown lines and the same main eyespots, plus faint brown bands and extra small eyespots on the hindwing.

Other details – Body is grey-brown; males have no special sex marks. A paler form may have clearer brown bands and very tiny or missing hindwing eyespots.

Host Plant - Grasses such as *Cynodon dactylon* (Doob grass), *Axonopus compressus*

9) Common Crow

Scientific Classification

Scientific Name – *Euploea core*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Euploea*

Species – *E. core*

Identification

The common crow butterfly is shiny black on top with brown undersides and white edges on its wings.

Both male and female have a hidden white streak near the back of the front wing, visible only when the wings are spread.

Males have an extra velvety black patch (brand) on the upper side of the forewing.

Host Plant - *Calotropis gigantea*, *Calotropis procera* (Milkweeds, Apocynaceae)

10) Common Cerulean

Scientific Classification

Scientific Name – *Jamides celeno*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Lycaenidae

Genus – *Jamides*

Species – *J. celeno*

Identification

Male – Top side pale bluish-white with a thin black edge on the forewing and a row of small black spots along the hindwing border. Underside is grey-brown with many neat white bands and a tiny black-blue spot near the tail.

Female – Upper side even paler (often almost white) with a much broader black edge on the forewing and extra black spots

on the hindwing. Underside looks the same as the male but lighter.

Seasonal change – In the wet season both sexes look darker overall and the black edges and spots are broader and clearer.

Host Plant - *Cassia fistula*, *Albizia lebbbeck*, *Pongamia pinnata* (Fabaceae)

11) Palm Fly

Scientific Classification

Scientific Name – *Elymnias caudata*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Elymnias*

Species – *E. caudata*

Identification

Male – Has white spots on the forewing with a bit of dark shading, and the outer half of the hindwing is orange-brown (tawny) with some black, sometimes forming a clear black edge.

Female – Looks like the female of *E. hypermnestra* but has more black overall.

Extra detail – On the female's hindwing, veins 2, 3, and 4 have thick black borders.

Host Plant – *Cocos nucifera* (Coconut), *Areca catechu* (Areca palm)

12) Zebra Blue

Scientific Classification

Scientific Name – *Leptotes plinius*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Nymphalidae

Genus – *Leptotes*

Species – *L. plinius*

Identification

This butterfly looks like *Tarucus theophrastus* from the top side, but the pattern on the underside of its wings is completely different.

Male color: The male's upper wings are dark violet or rich blue with thin black edges; the underside is white with brownish-black patterns and spots.

Host Plant - *Plumbago auriculata* (Leadwort), *Indigofera spp*

13) Pea Blue

Scientific Classification

Scientific Name – *Lampides boeticus*

Kingdom – Animalia

Phylum – Arthropoda

Class – Insecta

Order – Lepidoptera

Family – Lycaenidae

Genus – *Lampides*

Species – *L.boeticus*

Identification

Wingspan: Males have wings 24–32 mm wide, and females 24–34 mm wide

Color difference (sexual dimorphism): Males have bright blue-violet wings with brown edges, while females have less blue only in the center.

Other features: Both have long thin tails on the hindwings, two black spots near the bottom corner, and the underside of

the wings is yellowish-brown (ocher) with white patterns.

Host Plant – *Pisum sativum* (Pea), *Crotalaria juncea*, *Vigna unguiculata* (Leguminous plants)



Common Name: Psyche
Scientific Name: *Leptosia nina*



Common Name: Common Emigrant
Scientific Name: *Catopsilia pomona*



Common Name: Blue Moon Butterfly
Scientific Name: *Hypolimnys bolina*



Common Name: Common Grass Yellow
Scientific Name: *Eurema hecabe*



Common Name: Pale Grass Blue

Scientific Name: *Pseudozizeeria maha*



Common Name: Great Eggfly

Scientific Name: *Hypolimnas bolina*



Common Name: Lemon Pancy

Scientific Name: *Junonia lemonias*



Common Name: Common Four Ring

Scientific Name: *Ypthima huebneri*



Common Name: Common Crow
Scientific Name: *Euploea core*



Common Name: Common Cerulean
Scientific Name: *Jamides celeno*



Common Name: Palm Fly
Scientific Name: *Elymnias caudata*



Common Name: Zebra Blue
Scientific Name: *Leptotes plinius*

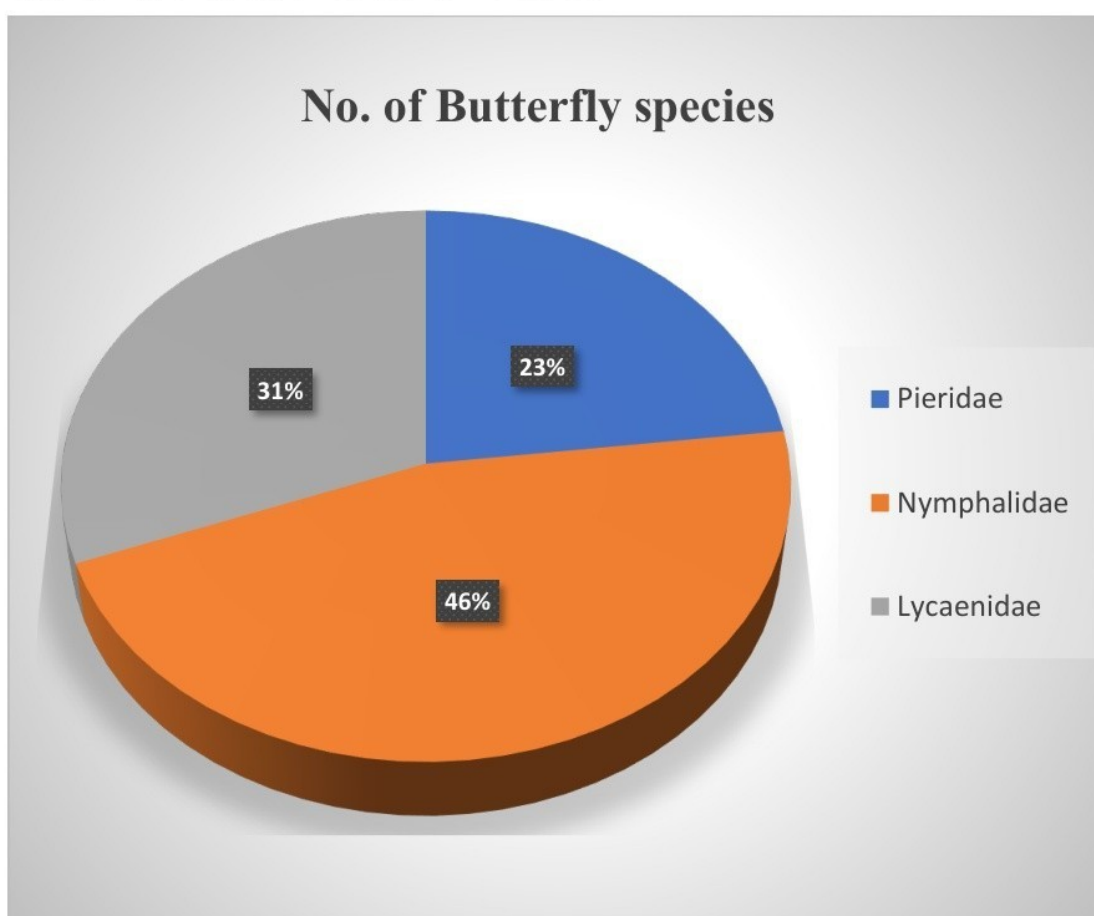


Common Name: Pea Blue

Scientific Name: *Lampides boeticus*

DISCUSSION AND CONCLUSION

The present study was carried out to observe the diversity of butterflies in the Hutatma Smarak, Pratibha Nagar area of Kolhapur. Butterflies are considered important bioindicators as their presence and abundance reflect the ecological health and environmental quality of a region. During the study period, a total of 13 species of butterflies belonging to 3 families—Nymphalidae (6 species), Lycaenidae (4 species), and Pieridae (3 species)—were recorded. Among these, the Nymphalidae family was found to be the most dominant, indicating its better adaptability and availability of suitable host plants in the area.



The diversity observed in this area provides a moderately rich habitat supporting a variety of butterfly species. The presence of members from different families also suggests that the local environment maintains a balance of floral resources and vegetation structure suitable for butterfly survival and reproduction.

In conclusion, the study highlights that Hutatma Smarak, Pratibha Nagar, Kolhapur, supports a good diversity of butterflies within a limited area. Conservation of green spaces, planting of nectar-rich flowering plants and reducing pollution can further enhance butterfly diversity. Continuous monitoring of butterfly populations can serve as an effective tool to assess ecological changes in this urban locality.

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Photo plate- Field Project Presentation (15/10/2025)

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