Phone No: 02320-239376, 239375 Email:yccggvp89@gmail.com Website:www.http//yashguru.edu.in

Daulat Vishwast Sanstha's



## Yashwantrao Chavan College, Halkarni, Tal. Chandgad, Dist. Kolhapur-416 552, Maharashtra, India Accrediated by NAAC at the B level

In-Charge PRINCIPAL- Dr. P. Y. Nimbalkar M.A., M.Phil., Ph.D.

Date: 21.12.2018

# **CERTIFICATE**

This is to certify that, A student research project entitled "Studies on Butterfly diversity in and around Kowad of Chandgad taluka in Kolhapur District" Sanctioned Under Lead College Research Sensitization Scheme, Shivaji University Kolhapur during the academic year 2017-18 is executed by students Mr. Sagar Maruti Chikhalkar, Mr. Akash Madhukar Kamble, Miss. Vaishali Uday Lohar and Miss. Pratiksha Vilas Nirmalkar in Zoology department under the Guidance of Dr. N. C. Hiragond. The part of the project report thereof not been previously presented for any diploma or degree.

Dr. N. Hiragond Project Advisor Yashwantrao Chavan College HALKARNI 416 552



# Final Report of the Student Research Project

# Sanctioned Under Lead College Research Sensitization Scheme, Shivaji University Kolhapur

### Academic Year 2017-18

# Topic: Studies on Butterfly diversity in and around Kowad of Chandgad taluka in Kolhapur District

Names of the students involved:

1. Mr. Sagar Maruti Chikhalkar

2. Mr. Akash Madhukar Kamble

3. Miss. Vaishali Uday Lohar

4. Miss. Pratiksha Vilas Nirmalkar

Name of the Project Advisor: Dr. N. C. Hiragond M. Sc., M. Phil., Ph. D.

Contacts: Email: *hiragond@rgmail.com* Cell: 9403470559, 09449626499

### DEPARTMENT OF ZOOLOGY YASHWANTRAO CHAVAN COLLEGE, HALKARNI – 416 552.

Tal. Chandgad, Dt. Kolhapur, State- Maharashtra, India. Ph: (02320) 239076, 239103, E-mail: yccollegehalkarni@yahoo.co.in, hiragond@gmail.com

# **Table of Contents**

Description	Page Number
1. Introduction	1-2
2. Table 1 Showing checklist of Buterflies	3-4
3. Some images of Butterflies	5-18

#### 1. Introduction:

Chandgad taluka in Kolhapur district of Southern Maharashtra is a part of Western Ghats representing rich biodiversity. Butterflies are the wonderful creatures of nature with their various attractive colored wings. Indian subcontinent reports around 1,800 butterfly species. Studies on Butterfly diversity in Chandgad are limited to More *et al.*, (2016) documented 52 species of butterflies from Tilari forest. Therefore we made an attempt to document the butterfly diversity in southeast part of the Chandgad (15° 55' 60 N, 74° 23' 0 E) taluka in Kolhapur.

**Study Area:** We have made regularly field survey for butterflies in Kowad (15°59'57"N 74°22'32"E) and nearby places Kudnoor, Kitwad, Chinchane, Nittur and its adjacent area in Chandgad taluka. The study area is a part of Western Ghats

located around 800 m asl and temperature ranging from 14.75 to 36.10° C. Annual rain fall ranges 3000 to 5000 mm/year. The study area consist several small ponds, lakes, agricultural fields and traversed by Tamrapani River.

#### 2. Methodology:

The study area was frequently visited in early morning and in the evening for the documentation of Butterfly during the period of September 2018 to November 2018. We have sighted several butterflies in the field and photographed by Nikon camera and mobiles. Insect nets are also used to collect the Butterflies. In the field we tried to identify the butterflies. The butterflies are also identified by using Field guides like Butterflies of India by Isaac Kehimkar (2018), Butterflies of India by Arun Pratap Singh.

#### 3. Results and Discussion:

During the above said survey period we have documented 44 butterfly species belongs to 31 genus. Table 1 shows a list of Butterfly documented in present study. We have some more around 25 butterfly images, which we have not added to the checklist.

We need some more time for their identification. In a limited period survey we have documented 44 butterfly species. This proves that the study area is rich in Butterfly population. Some more observations are needed to prepare a complete Butterfly checklist of the study area. Since, the study area consist several flowering plants vegetable crops that supports the butterfly population. This short term observation on Butterfly diversity initiated interest to do survey in entire Chandgad taluka for butterflies. We can prepare a complete checklist of Butterfly diversity of Chandgad taluka and try to document life cycle of some butterfly species.

#### 4. Acknowledgements:

We Mr. Sagar Maruti Chikhalkar, Mr. Akash Madhukar Kamble, Miss. Vaishali Uday Lohar and Miss. Pratiksha Vilas Nirmalkar wish to thank Shivaji University. Kolhapur and the Co-ordinator, Lead College, Dr. Ghali College, Gadhinglaj for sanctioning the research grant. We thank Project Advisor Dr. N. C. Hiragond, Department of Zoology for his guidance and support in implementation of this research project. We also thank the Principal, Yashwantrao Chavan College, Halkarni for providing facilities.

#### Name of the Student

Signature

1. Mr. Sagar Maruti Chikhalkar

2. Mr. Akash Madhukar Kamble

3. Miss. Vaishali Uday Lohar

4. Miss. Pratiksha Vilas Nirmalkar

Schrikhalkas

AKASHKamble.

Remulkas.

Table. 1. Shows a list Butterflies documented in Kowad and nearby places in Chandgad

Taluka of Kolhapur District

Sl. No.	Common Name	Name of the Genus	Name of the Species
1	Dark Evening Brown	1. Melanitis	Phedima varaha
2	Common Evening Brown		leda
3	Blue Tiger	2. Tirumala	limniace
4	Striped Tiger	3. Danaus	genutia
5	Plain Tiger		chrysippus
6	Gram Blue	4. Euchrysops	cnejus
7	Indian Cupid	5. Everes	lacturnus
8	Common Jezebel	6. Delias	eucharis
9	Common Crow	7. Euploea	core
10	Double Branded Crow		sylvester
11	Brown King Crow		klugii
12	Common Bush Brown	8. Mycalesis	perseus
13	Long Brand Bushbrown		visala
14	Danaid Eggfly	9. Hypolimnas	misippus
15	Tawny Coster	10. Acraea	violae
16	Common Castor	11. Ariadne	merione
17	Orane-Tail Awl	12. Bibasis	sena
18	Plain Banded Awl	13. Hasora	vitta
19	Bush Hopper	14. Ampittia	dioscorides
20	Tamil Grass Dart	15. Taractorocera	ceramas
21	Southern Blue Bottle	16. Graphium	teredon

22	Common Rose	17. Pachliopta	aristolochiae	
23	Crimson Rose	Pachliopta	hector	
24	Common Mormon	18. Papilio	polytes	
25	One Spot Grass Yellow	19. Eurema	andersoni	
26	Three Spot Grass Yellow		blanda	
27	Small Grass Yellow		brigitta	
28	Common Grass Yellow		hecabe	
29	Common Wanderer	20. Pareronia	hippia	
30	Common Ciliate Blue	21. Anthene	emolus	
31	Pointed Ciliate Blue		lycaenina	
32	Zebra Blue	22. Leptotes	plinius	
33	Small Cupid	23. Chilades	Parrhassius	
34	Red Pierrot	24. Talicada	Nyseus	
35	Leaf Blue	25. Amblypodia	Anita	
36	Common Three Ring	26. Ypthima	Asterope	
37	Common Four Ring		Huebneri	
38	Common Sailer	27. Neptis	Hylas	
39	Great Eggfly	28. Hypolimnas	Bolina	
40	Danaid Eggfly		Misippus	
41	Chocolate Pansy	29. Junonia	iphita	
42	Lemon Pansy		lemonias	
43	Common Tree Brown	30. Lethe	rohira	
44	Striped Albatross	31. Appias	libythea	

Following are the some images of the Butterflies photographed during our regular field work in Kowad and nearby places in Chandgad Taluka of Kolhapur District

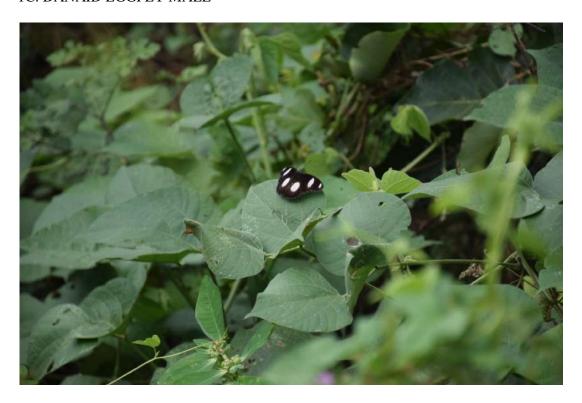
#### 1. 1A. DANAID EGGFLY FEMALE



1B. DANAID EGGFLY FEMALE DIFFERENT FORM WITHOUT BLACK AND WHITE APEX



#### 1C. DANAID EGGFLY MALE



#### 2. COMMON EVENING BROWN



#### 3. STRIPED TIGER



#### 4. GRAM BLUE



#### 5. DARK EVENING BROWN



### 6. INDIAN CUPID



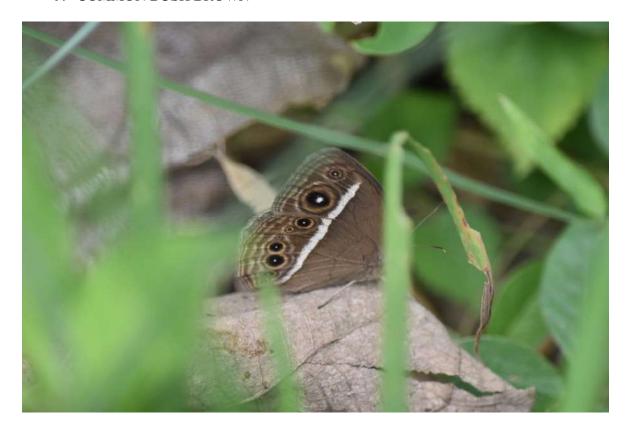
#### 7. COMMON JEZEBEL



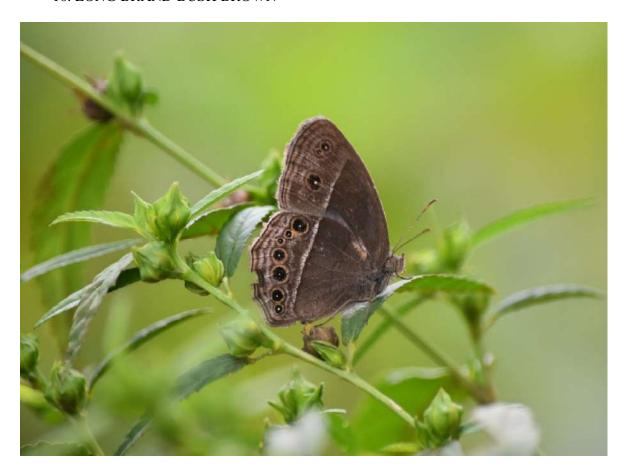
#### 8. COMMON CROW



#### 9. COMMON BUSH BROWN



10. LONG BRAND BUSH BROWN



#### 11. RED PIERROT



12. THREE SPOT GRASS YELLOW



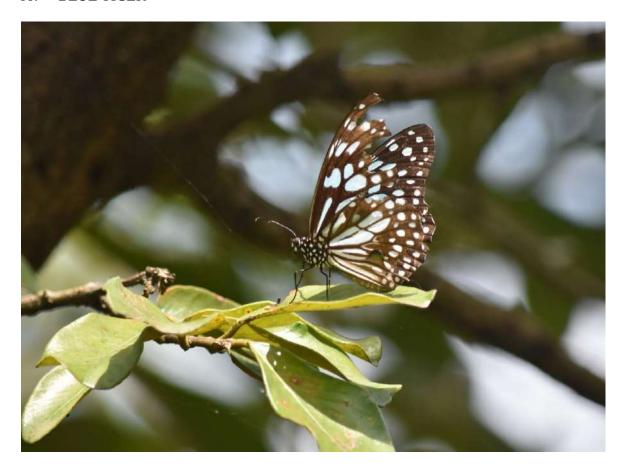
#### 13. SMALL CUPID



15.COMMON TREE BROWN



#### 16. BLUE TIGER



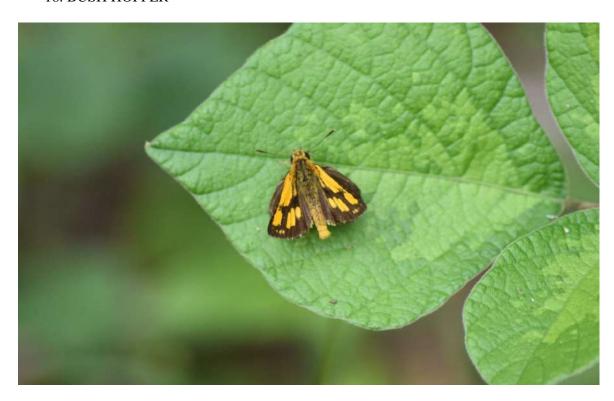
17. STRIPED ALBATROSS



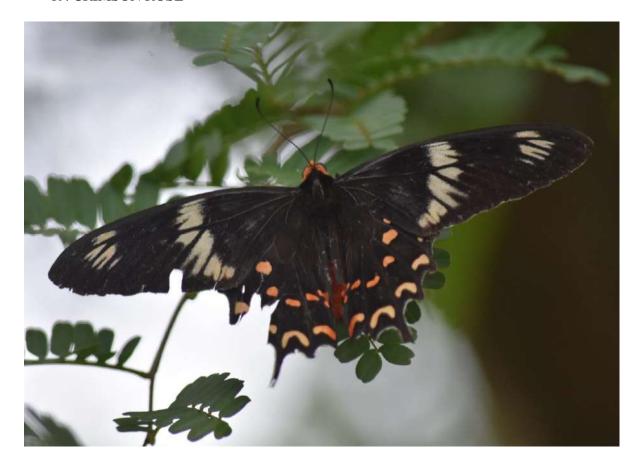
#### 18. PLAIN TIGER



18. BUSH HOPPER



#### 19. CRIMSON ROSE



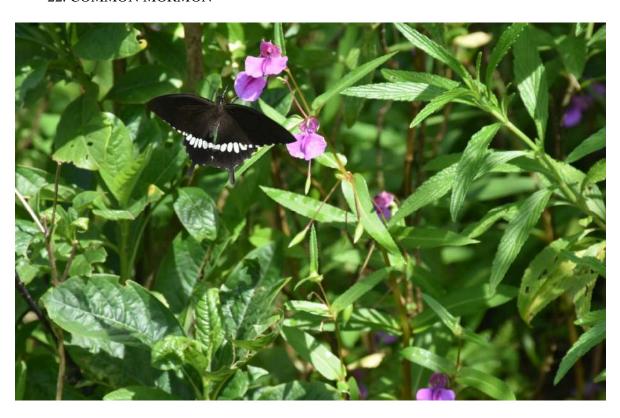
20. CHOCOLATE PANSY



#### 21. COMMON SAILOR



22. COMMON MORMON



#### 23. LEMON PANSY



### STUDENTS INVOLVEMENT IN THE FIELD WORK.





