

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK




G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE


This is to certify that the work incorporated in the  
dissertation entitled

*STUDY OF POULTRY BREED AND THEIR DISEASE AROUND  
GULWANCH VILLAGE*

Was satisfactorily carried out by MISS. Sanap Mukta Ashok of BSC-  
ZOOLOGY. She has completed this project under my supervision and  
guidance during academic YEAR 2021-2022. This Project work Submitted  
by her is Original and the scientific information obtain from other sources  
have been duly acknowledged.

  
21/05/22  
SMT. Jayashree Shinde  
(Project Guide)

  
23/5/22  
Examiner

  
HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
and Science College, Sinnar  
DR. P.R. KOKATE  
(HOD)

## Acknowledgement :

It gives me great pleasure to take the opportunity to express my sincere. Thanks to my research guid Mrs. Jayashree Shinde for her encouragement guidance, her constructive suggestions and all sorts of help ever since the very inception of the study.

I am thankful to Dr.P.V.Rasal. Principal of G.M.D. Arts B.W commerce and science college, sinnar. For providing necessary facilities to carry out project. Work. I equally thankful to the Dr. P.P kokate, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of zoology for all the help and kind co-operation during the project.

I am very thank full to my mother for her continuous support and enjoyable help throughout the project work.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity to thanks to all wishers for

Their compliments.

Place: P.G. Dept. Of zoology.

G.M.D. Arts B.W.commerce science college

Date: 21/05/2022

Miss . Sanap Mukta Ashok

T.Y BSC Zoology

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK


G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNER, TAL-SINNAR, DIST-NASHIK

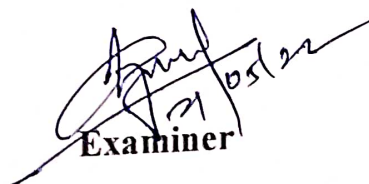
## CERTIFICATE

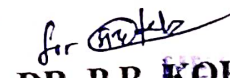
This is to certify that the work incorporated in the  
dissertation entitled

THE CAMPARTIVE STUDY OF ENVIRONMENTAL PARAMETRES OF  
THE WATER SUPPLIED BY WAVI GRAMPALIKA

Was satisfactorily carried out by MS. BHOSALE KOMAL RAJENDRA  
of BSC-ZOOLOGY. He has completed this project under my supervision and  
guidance during academic YEAR 2021-2022. This Project work Submitted by his  
is Original and the scientific information obtain from other sources have been duly  
acknowledged.

for   
P.R KOKATE  
(Project Guide )

  
Examiner

for   
DR. P.R. KOKATE  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
& Science College, Sinner, Nashik



## Acknowledgement

I give the great pleasure to take the opportunity to express my sincere thanks to my research guide Prof. Dr. P. K. Mishra, dean for his encouragement, guidance, his constructive suggestions, and all sorts of help ever since the very inception of the study.

I am thankful to Dr. P. K. Mishra, principal of U. M. S. Arts & M. Commerce Science College, for providing necessary facilities to carry out project work. I am equally thankful to the Dr. P. K. Mishra, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and work in completion during the project.

I am greatly indebted to my parents for their constant support, encouragement and help in handling all my activities and project work and constant source of inspiration in each step of the life.

Finally, here I took an opportunity to thank to all workers for their cooperation.

Place: U. S. Dept. of Zoology,

U. M. S. Arts & M. Commerce Science College

Date:

With Kindest Regards

P. K. Mishra



# G.M.D. ARTS BW, COMMERCE & SCIENCE COLLEGE SINNAR

## CERTIFICATE


SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE


This is to certify that the work incorporated in the dissertation entitled

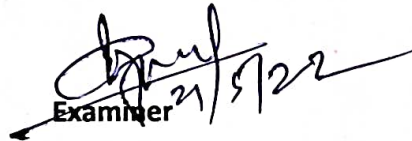
**Earthworms resources and vermiculture** was satisfactorily carried out by Miss Darade priya balasaheb of T.Y.

Condition

B.sc. Zoology. She is bonafide student of this college. She Has completed this project supervision and guidance during academic year 2021-2022. This project work Submitted by her is original and the scientific information's obtained from other sources have been duly acknowledged.

  
Prof. Arti tidme  
(Project Guide)

  
Dr. P.R. kokate  
(HOD)

  
Examiner  
21/5/22

# Acknowledgement

It gives me great pleasure to take the opportunity to express my sincere thanks to my research guide prof. Arti Tidme mam for his encouragement, guidance, his constructive suggestions, and all sorts of help ever since the very inception of the study.

I am thankful to Dr. P. V. Rasal Principal of G.M.D. Arts B.W Commerce and Science college, Sinnar. For providing necessary facilities to carry out project work. I am equally thankful to the Dr. P. P. Kokate, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and kind cooperation during the project.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity to thank to all wishers for their compliments.

Place : P. G. Dept. Of Zoology.

G.M.D Arts B.W. Commerce science college

Date :

Ms. Darade Priya Balasaheb

T.Y Bsc Zoology

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



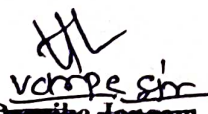
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE

This is to certify that the work incorporated in the  
dissertation entitled

*A LIFE HISTORY AND MORPHOLOGICAL STUDY OF  
HELICOVERPA ARMIGERA ON CHICKPEA PLANT.*

Was satisfactorily carried out by MR. BORSE RAJ HEMANT of BSC-  
ZOOLOGY. He has completed this project under my supervision and guidance  
during academic YEAR 2021-2022. This Project work Submitted by his is  
Original and the scientific information obtain from other sources have been duly  
acknowledged.

  
Mrs. ~~Deepika Jangam~~  
(Project Guide)

  
Examiner

DR. P.R. KOKATE  
(HOD)



## Acknowledgement :

It gives me great pleasure to take the opportunity to express my sincere. Thanks to my research guid **Mr. Vikas Varpe** for her encouragement guidance, her constructive suggestions and all sorts of help ever since the very inception of the study.

I am thankful to **Dr.P.V.Rasal**. Principal of G.M.D. Arts B.W commerce and science college, sinnar. For providing necessary facilities to carry out project. Work. I equally thankful to the **Dr. P.P kokate**, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of zoology for all the help and kind co-operation during the project.

I am very thank full to my mother for her continuous support and enjoyable help throughout the project work.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity to thanks to all wishers for

Their compliments.

Place: P.G. Dept. Of zoology.

G.M.D. Arts B.W.commerce science college

Date:

**Mr. Borse Raj Hemant**

T.Y BSC Zoology

---

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



**MARATHA VIDYA PRASARAK SAMAJ, NASHIK**

G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK - 422103

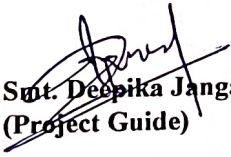
## **CERTIFICATE**

**DEPARTMENT OF ZOOLOGY**


**This is to certify that the work incorporated in the  
dissertation entitled**

Was satisfactorily carried out by **MISS.SHELKE SHUBHANGI**

**BALASAHEB** of B.Sc-ZOOLOGY. She has completed this project under my supervision and guidance during academic YEAR 2021-2022. This Project work Submitted by her is Original and the scientific information obtain from other sources have been duly acknowledged.

  
Smt. Deepika Jangam  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATE  
(HOD)

## Acknowledgement:

I would like to express my special thanks of gratitude to my teacher smt D.V. Jangam mam, as well as our principal P.V.Rasal sir. Who gave me the golden opportunity to do this wonderful project on the topic "study of agriculture pest in sinnar area". Which also help me in doing a lot of many new things I am really thankful to them.

Secondly I would also like to thank my parents and my friends who help me a lot in finalising this project within the limited time frame

Place: P.G Dep. of zoology

G.M.D Arts, B.W commerce and science college sinnar.





University of Pune

**INSECT BLOOD**

DISSERTATION SUBMITTED TO

FOR THE FULFILMENT OF

DEGREE OF BACHELOR OF SCIENCE IN ZOOLOGY

BY

**MR. PATAIT KSHITIJ DNYANESHWAR**

UNDER THE GUIDANCE OF

**SMT. DEEPIKA JANGAM**



**P.G. DEPARTMENT OF ZOOLOGY**

**G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,**

**SINNAR 2021-22**

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



**MARATHA VIDYA PRASARAK SAMAJ, NASHIK**

G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK - 422103


## CERTIFICATE

DEPARTMENT OF ZOOLOGY

This is to certify that the work incorporated in the  
dissertation entitled

**“INSECT BLOOD”**

Was satisfactorily carried out by Mr . Patait Kshitij Dnyaneshwar of  
B.Sc-ZOOLOGY. he has completed this project under my supervision and  
guidance during academic YEAR 2021-2022. This Project work Submitted by  
he is Original and the scientific information obtain from other sources have  
been duly acknowledged.

  
Smt. Deepika Jangam  
(Project Guide)

  
Examiner 5/22

  
DR. P.R. KOKATE  
(HOD)



G.M.D. ARTS, B.W. COMMERCE AND  
SCIENCE COLLEGE, SINNAR, NASHIK.

# CERTIFICATE

Savitribai Phule Pune University, Pune

This is to certify that the work incorporated in the dissertation entitled

**"STUDY OF WATER POLLUTION"**

Was satisfactorily carried out by Mis Yadav Ragini Rakesh. Of T.Y.B.sc. she is a bonafide student at this College. She has completed this project under my supervision and guidance during the academic year 2021-22. This project work submitted by her is original and the scientific information obtained from other sources has been duly acknowledged.

Prof. L.S.Chandore  
Project Guide

Examiner

Dr. P.R. Kokate  
Head, Dept of Zoology



## ACKNOWLEDGMENT

It gives me great pleasure to take the opportunity to express my sincere thanks to my research guide Prof. L.S.Chandore Sir for his encouragement, guidance, his constructive suggestions, and all sorts of help ever since the very inception of the study.

I am thankful to Dr. P.V. Rasal, Principal of G.M.D. Arts, B.W. Commerce & Science College, Sinnar. For providing necessary facilities to carry out project work. I am equally thankful to Dr. P.R. Kokate sir, Head of the Department of zoology for providing ideas regarding my project and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of the Department of Zoology for all the help and kind co-operation during the project.

I am also thankful to my brother for their support and for providing me with a laptop for completing my project as well as enjoyable help throughout the project work. I am greatly indebted to my parents for their continuous support, wholehearted encouragement, funding for all my education and project work, and a constant source of inspiration in each step of my life.

Finally, here I take an opportunity of thanks to all wishers for their compliments.

Place: Dept. Of Zoology  
G.M.D. Arts, B.W. Commerce & Science College,  
Sinnar.  
Date:

Mis. Yadav Ragini Rakesh  
T.Y.B.Sc. (Zoology)



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



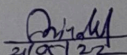
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

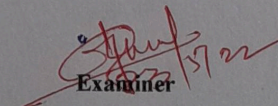
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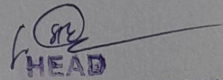
This is to certify that the work incorporated in the  
dissertation entitled

*STUDY AND OBSERVATION OF HONEY BEES, BEHAVIOUR AND  
LIFE CYCLE OF HONEY*

Was satisfactorily carried out by MISS. NETKE PALLAVI DATTU of  
**BSC-ZOOLOGY**. She has completed this project under my supervision  
and guidance during academic **YEAR 2021-2022**. This Project work  
Submitted by her is Original and the scientific information obtain from  
other sources have been duly acknowledged.

  
Smt. Jayashree Shinde  
(Project Guide)

  
Examiner

  
HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
and Science College, Sinnar  
DR. P.R. KOKATE  
(HOD)



~~Morphology~~

Morphology In Butterfly in Village Ghagalwadi

**SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE**



**MARATHA VIDYA PRASARAK SAMAJ, NASHIK**



G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

**CERTIFICATE**

**This is to certify that the work incorporated in the  
dissertation entitled**

**FORENSIC SCIENCE PROJECT**

Was satisfactorily carried out by MISS. SHELAR VANITA DASHRATH

Of **BSC-ZOOLOGY**. He has completed this project under my supervision and guidance during academic **YEAR 2021-2022**. This Project work Submitted by his is Original and the scientific information obtain from other sources have been duly acknowledged.

*Tidme*  
23/05/22  
Prof. TIDME MAM  
(Project Guide)

*[Signature]*  
23/5/22  
Examiner

*[Signature]*  
23/5/2022  
DR. P.R. KOKATE  
(HOD)



SAVTRIBAI PHULE PUNE UNIVERSITY, PUNE.



MARATHA VIDYA PRASARAK SAMAJ, NASHIK

G.M.D. ARTS, B.W. COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL. SINNAR, DIST. NASHIK - 422102

**CERTIFICATE**

DEPARTMENT OF ZOOLOGY

This is to certify that the work incorporated in the  
dissertation entitled

**"TO STUDY OF THE BIRDS HELIREGIONS IN  
LIVING MY VILLAGE DHULWAD"**

Was satisfactorily carried out by Miss. Avhad Karina Dnyaneshwar  
of **TY.B.Sc-ZOOLOGY**. he has completed this project under my supervision  
and guidance during academic **YEAR 2021-2022**. This Project work Submitted  
by he is Original and the scientific information obtain from other sources have  
been duly acknowledged.

Smt. P.R. Kokate  
(Project Guide)

Examiner

DR. P.R. KOKATE  
(HOD)

HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
and Science College, Sinnar

Good

G.M.D ARTS BW, COMMERCE & SCIENCE COLLEGE SINNER

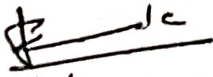
CERTIFICATE

SAVITRI PHULE PUNE UNIVERSITY , PUNE

STUDY OF THE BIRDS IN HELIREGIONS IN LIVING MY VILLAGE DHULWAD Out by Miss Avhad  
Karina Dnyaneshwar of T.Y.Bsc Zoology .

Condition

She is bonafied student of this college . She has cometed this project under my supervision and guidance during academic year 2021-2022. This projects work submityed by her is original and the scientific informations obtained from other sources have been duly acknowledged



Prof . P.R. Kokate .

(Project Guide

Dr. P.R.Kokate

( HOD).

Examiner



G.M.D. ARTS BW, COMMERCE & SCIENCE  
COLLEGE SINNAR

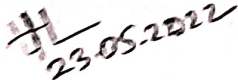
## CERTIFICATE

SAVITRIBAI PHULE PUNE UNIVERSITY,  
PUNE


This is to certify that the work incorporated in the dissertation entitled

Development Of Achatina fulica in Laboratory  
Condition

Was satisfactorily carried out by Miss Kandekar Tanisha Umakant of T.Y. B.sc. Zoology. She is bonafide student of this college . She Has completed this project under my supervision and guidance during academic year 2021-2022. This project work Submitted by her is original and the scientific information's obtained from other sources have been duly acknowledged.

  
23.05.2022  
Prof. Vikas Varpe  
(Project Guide)

  
Examiner

  
Dr. P. R. Kokate  
(HOD)



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



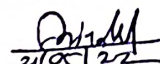
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE


This is to certify that the work incorporated in the  
dissertation entitled

*STUDY AND OBSERVATION OF HONEY BEES, BEHAVIOUR AND  
LIFE CYCLE OF HONEY*

Was satisfactorily carried out by MISS. NETKE PALLAVI DATTU of  
**BSC-ZOOLOGY**. She has completed this project under my supervision  
and guidance during academic **YEAR 2021-2022**. This Project work  
Submitted by her is Original and the scientific information obtain from  
other sources have been duly acknowledged.

  
21/05/22  
SMTs. Jayashree Shinde  
(Project Guide)

  
Examiner

  
HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
and Science College, Sinnar  
DR. P.R. KOKATE  
(HOD)

## Acknowledgement :

It gives me great pleasure to take this opportunity to express my sincere. Thanks to my research guide **Mrs. Jayashree Shinde** for her encouragement, guidance, her constructive suggestions and all sorts of help ever since the very inception of the study.

I am thankful to **Dr. P.N. Rasal**, Principal of G.M.D. Krs B.M. commerce and science college, sinner. For providing necessary facilities to carry out project. Work. I equally thankful to the **Dr. P.P. Kokate**, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of zoology for all the help and kind co-operation during the project.

I am very thank full to my mother for her continuous support and enjoyable help throughout the project work.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity to thanks to all wishers for

Their compliments.

Place: P.G. Dept. Of zoology.

G.M.D. Krs B.M. commerce science college

Date: 21/08/2022 .

Miss. Neelke Pallavi Dattu

T.Y BSC Zoology

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



**MARATHA VIDYA PRASARAK SAMAJ, NASHIK**

G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK - 422103

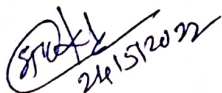
## CERTIFICATE

DEPARTMENT OF ZOOLOGY

This is to certify that the work incorporated in the  
dissertation entitled

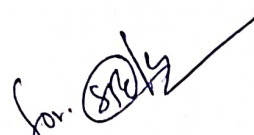
**STUDY ON FRESH WATER PROTOZOA FROM POND  
WATER ECOSYSTEM OF MY COLLAGE CAMPUS**

Was satisfactorily carried out by MISS.Jagtap Amruta Madhukar of  
**B.Sc-ZOOLOGY**. She has completed this project under my supervision and  
guidance during academic **YEAR 2021-2022**. This Project work Submitted by  
her is Original and the scientific information obtain from other sources have  
been duly acknowledged.

  
24/5/22

Prof .Sanjay Pekhale  
(Project Guide)

  
24/5/22  
Examiner

  
DR. P.R. KOKATE  
HOD

DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
and Science Collage, Sinnar



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



**MARATHA VIDYA PRASARAK SAMAJ, NASHIK**

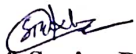
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK - 422103

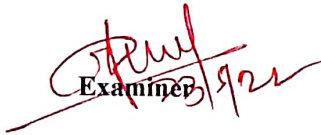
## CERTIFICATE


DEPARTMENT OF ZOOLOGY

**This is to certify that the work incorporated in the  
dissertation entitled**

Was satisfactorily carried out by MISS.NIKITA SADASHIV VISE  
of **B.Sc-ZOOLOGY**. She has completed this project under my supervision and  
guidance during academic **YEAR 2021-2022**. This Project work Submitted by  
her is Original and the scientific information obtain from other sources have  
been duly acknowledged.

  
Prof. Sanjay Pekhale  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATE  
(HOD)

**Title**

THE STUDY OF SOCIAL  
ANIMAL TERMITE

## **Acknowledgement:**

It gives me great pleasure to take the opportunity to express my sincere thanks to my for the encouragement guidance, their constructive suggestions and all the study I am thankful to **Dr P.V Rasal sir. Principle of GMD arts. B.w.commerce & science college sinnar** for providing necessary facilities to carry out project work .I equal thankful to the **Dr. P.R kokate sir, Head of the Department of zoology** and my guide teacher **Mr. Sanjay Pekhale Sir** for providing laboratory Facilities & guidance to completing the above project work. I express my thanks to all respected teachers or non-teaching staff of Department of zoology for all the help and kind co-operation during the Project, Also thank I and thankful to all those who Inspired and helped me to doing these project Finally, here I taken an opportunity to thanks to all wishers for their compliments.

Place: P.G Dept.of zoology.

G.M.D Arts B.w commerce & science college sinnar.

Date :

**Miss. Vise Nikita Sadashiv**

**Ty.B.sc Zoology.**



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK

G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK - 422103


## CERTIFICATE

DEPARTMENT OF ZOOLOGY

This is to certify that the work incorporated in the  
dissertation entitled

### MORPHOLOGY OF INSECT WINGS

Was satisfactorily carried out by MISS.CHAKOR POOJA UTTAM  
of B.Sc-ZOOLOGY. She has completed this project under my supervision and  
guidance during academic YEAR 2021-2022. This Project work Submitted by  
her is Original and the scientific information obtain from other sources have  
been duly acknowledged.

C  
  
Prof. Varpe Sir  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATE  
(HOD)

# SAVITRIBAI PHULE PUNE UNIVERSITY PUNE




MARATHA VIDYA PRASARAK SAMAJ, NASHIK  
G.M.D.ARTS B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE

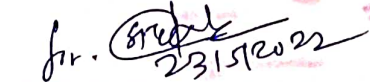
The is to certify that the work incorporated in the  
dissertation entitled

### **ANATOMICAL STUDY OF COCKROACHES**

Was satisfactorily carried out by MR. PRATIKSHA LAXMAN KORDE of BSC-  
ZOOLOGY She was completed this project under my supervision and guidance  
during academic YEAR 2021-2022. This Project work Submitted by she is Original  
and the scientific information obtain from other sources have been duly  
acknowledged

  
23/05/2022  
Prof. JAYASHREE SHINDE  
(Project Guide)

  
Examinar

  
23/05/2022  
DR.P.R.KOKATE  
(HOD)

## Acknowledgement

It gives me great pleasure to take the opportunity to express my sincere. Thanks to my research guide Prof. Jayashree shinde mam for her encouragement guidance, her constructive suggestions, and all sorts of help ever since the very inception of the study.

I am thankful to Dr.P.V.Rasal principal of G.M.D. Arts B.W commerce and science college, sinnar. for providing necessary facilities to carry out project. work. I equally thankful to the Dr. P.P. kokate, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and kind co operation during the project.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I took an opportunity to thanks to all wishers for their compliments.

Place: P.G. Dept. of zoology.

**G.M.D. Arts B.W. Commerce Science College**

**Date:**

**Miss. Pratiksha laxman korde**

**T.Y.BSc Zoology**



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK


## CERTIFICATE

This is to certify that the work incorporated in the  
dissertation entitled

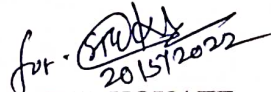
To Study of Store Grain Pest

Was satisfactorily carried out by MR. PANSARE DIPTI BALASAHEB

of **BSC-ZOOLOGY**. He has completed this project under my supervision and guidance during academic **YEAR 2021-2022**. This Project work Submitted by his is Original and the scientific information obtain from other sources have been duly acknowledged.

  
Prof. PEKHALE SIR  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATE  
(HOD)



Maratha Vidya Prasarak Samaj's  
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE  
COLLEGE, SINNAR.  
Tal- Sinnar, Dist-Nashik


**DEPARTMENT OF ZOOLOGY**  
**2021-2022**

**CERTIFICATE**


This is to certify that the work incorporated in the dissertation entitled

(“COMPARATIVE STUDY OF MORPHOLOGICAL AND STRUCTURAL CHANGES IN THE FORMATION OF BEAK OF CHICKEN”)

was satisfactorily carried out by **MISS. PAGAR ASHVINI JANARDHAN** of T.Y.Bsc ( Zoology ). She is banafide student of this college. She has completed this project under Mrs. S. T. Pekhale during academic year 2021-22. This project work submitted by her is original and the scientific informations obtained form other sources have been duly a knowledged.

  
MRS. S.T. PEKHALE  
Project Guide

  
Examiner

  
HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE  
COLLEGE, SINNAR, DIST. NASHIK  
Head of department

**GMD ARTS, BW COMMERCE,SCIENCE COLLEGE**



**Affiliated to**

**SAVITRIBAI PHULE PUNE UNIVERSITY,PUNE**

**A**

**Project Report On**

**“Study of various method of cultural control in my village ”**

**In fulfillment of requirements for**

**Project**

**Submitted By**

**MS. Dapse sonali Laxman**

**Under the guidance of**

**Smt.S.S. Bhamare**

**For Academic Year**

**2021-22**




**GMD ARTS, BW COMMERCE, SCIENCE COLLEGE**



**Certificate**

This is to certify that the project report entitled as “ **Study of various method of cultural control in my village** ” being submitted by **Ms. Dapse Sonali Laxman** is a record of bonafide work carried out by her under the supervision and guidance by **Smt. S.S.Bhamare** in fulfillment of requirement of **BSC ( Zoology Department ) – 2019** Credit pattern course of Savitribai Phule Pune University for the Academic year 2021-22.

  
Smt. S.S. Bhamare  
Project Guide

  
Examiner

Dr. P.R.Kokate  
Head of Zoology Dept.

## ACKNOWLEDGEMENT

I wish a true sense of gratitude to my audit course guide Smt.S.S.bhamare and Dr.P.R.Kokate Head of Zoology Department who, at every discrete step of this course contributed their valuable guidance and helped to solve each and every, problem that occurred during the course.

This is a nice opportunity for me to present a audit course titled "**study of various Methods of cultural control in my village**". I would extend my sincere thanks to all staff members for extending their kind support and encouragement during the preparation steps of this course. I also express my thanks to all my friends who directly or indirectly supported me during the preparation of this audit course.

MS. DAPSE SONALI LAXMAN

Date:

Place: Sinnar

**"STUDY OF ZOOPLANKTON FROM SARADWADI DAM  
WATER RESERVOIR."**

DISSERTATION SUBMITTED TO



**SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE**

FOR THE FULLFILMENT OF  
DEGREE OF BACHELOR OF SCIENCE IN ZOOLOGY

BY

**Miss Narote Madhuri Suryabhan**

UNDER THE GUIDANCE OF

**Prof. S.T. Pekhale**

PLACE OF PROJECT WORK



**P.G. DEPARTMENT OF ZOOLOGY**

**G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE, SINNAR.**

**2021-2022**





G.M.D. ARTS, B.W. COMMERCE AND  
SCIENCE COLLEGE, SINNAR, NASHIK.


## CERTIFICATE

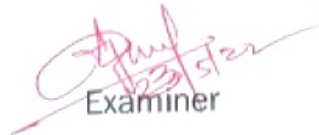
Savitribai Phule Pune University, Pune

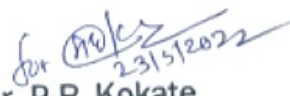
This is to certify that the work incorporated in the dissertation entitled

**“STUDY OF ZOOPLANKTON FROM SARADWADI DAM  
WATER RESERVOIR.”**

Was satisfactorily carried out by **Miss Narote Madhuri Suryabhan**. Of T.Y.B.sc she is bonafide student of this College. She has completed this project under my supervision and guidance during academic year 2021-22. This project work submitted by her is original and the scientific information's obtained from other sources have been duly acknowledged.

  
Prof. S.T. Pekhale  
Project Guide

  
Examiner

  
Dr. P.R. Kokate  
Head, Dept of Zoology

## ACKNOWLEDEMENT

It gives me great pleasure to take the opportunity to express my sincere thanks to my research guide Prof.S.T.Pekhale Sir for his encouragement, guidance, his constructive suggestions and all sorts of help ever since the very inception of the study.


I am thankful to Dr. P.V. Rasal. Principal of G.M.D. Arts, B.W. Commerce & Science College, Sinnar. For providing necessary facilities to carry out project work. I equally thankful to the Dr. P.R. Kokate sir, Head of the Department of zoology for providing ideas regarding my project and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and kind co-operation during the project.

I am also thankful to my brother for their support and providing me laptop for completing my project as well as enjoyable help throughout the project work.

I am greatly indebted to my Parents for their continuous support, wholehearted encouragement, funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity of thanks to all wishers for their compliments.

Place: P.G. Dept. Of Zoology  
G.M.D. Arts, B.W. Commerce & Science college, sinnar.  
Date: 23/05/2022

  
Miss. Narote Madhuri Suryabhan  
T.Y.B.Sc (Zoology)



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK

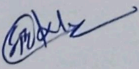
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE

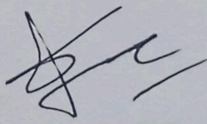
This is to certify that the work incorporated in the  
dissertation entitled

**STUDY OF THE BOILER CHICKEN LEG  
DISEASES AND THEIR TREATMENT**

Was satisfactorily carried out by MISS. PAGAR SONALI  
PARASARAM of T.Y.BSC-ZOOLOGY. He has completed this project under  
my supervision and guidance during academic YEAR 2021-2022. This Project  
work Submitted by his is Original and the scientific information obtain from other  
sources have been duly acknowledged.

  
Prof. S.P. PEKHALE  
(Project Guide )

  
23/5/2022  
Examiner

  
DR. P.R. KOKATE  
(HOD)



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MARATHA VIDYA PRASARAK SAMAJ, NASHIK



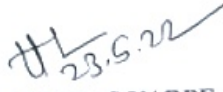
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE

This is to certify that the work incorporated in the  
dissertation entitled

STUDY OF DEFERENT TYPE OF WINGS OF INSECT

Was satisfactorily carried out by MR.SANGALE NIKHIL SAHEBRAO  
of **BSC-ZOOLOGY**. He has completed this project under my supervision and  
guidance during academic **YEAR 2021-2022**. This Project work Submitted by  
his is Original and the scientific information obtain from other sources have  
been duly acknowledged.

  
Prof. VIKAS VARPE  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATÉ  
(HOD)

**Acknowledgement :**

It gives me great pleasure to take the opportunity to express my sincere. Thanks to my research guide **Mr. Varpe sir** for her encouragement guidance, her constructive suggestions and all sorts of help ever since the very inception of the study.

I am thankful to **Dr.P.V.Rasal**, principal of G.M.D. Arts B.W commerce and science college, sinnar. For providing necessary facilities to carry out project. Work. I equally thankful to the **Dr. P.P kokate**, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of zoology for all the help and kind co-operation during the project.

I am very thank full to my mother for her continuous support and enjoyable help throughout the project work.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity to thanks to all wishers for

Their compliments.

Place: P.G. Dept. of zoology.

G.M.D. Arts B.W.commerce science college

Date:

Mr .Sangale Nikhil sahebrao

T.Y BSC Zoology



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



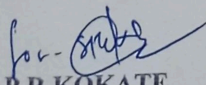
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

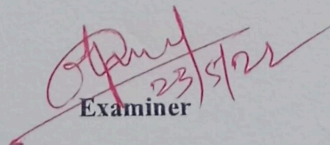
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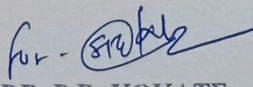
This is to certify that the work incorporated in the dissertation  
entitled

THE STUDY OF MOLLUSCN SNAIL (GIANT SNAIL)

Was satisfactorily carried out by Miss.SHINDE SONALI BHAUSAHEB  
of BSC-ZOOLOGY. She is completed this project under my supervision and  
guidance during academic YEAR 2021-2022. This Project work Submitted by  
her is Original and the scientific information obtain from other sources have been  
duly acknowledged.

for -   
DR.P.R.KOKATE  
(Project Guide)

  
23/5/22  
Examiner

for -   
DR. P.R. KOKATE  
(HOD)



## ACKNOWLEDEMENT

It gives me great pleasure to take the opportunity to express my sincere thanks to my project guide Dr. Kokate sir for his encouragement, guidance, his constructive suggestions and all sorts of help ever since the very inception of the study.

I am thankful to Dr. P.V.Rasal sir principle of GMD college sinnar providing necessary facilities to carry project work. I equally thankful to the Dr. kokate sir Head of the Department of Zoology for providing laboratory facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and kind co-operation during the project

**Place : Department of Zoology**

**G.M.D College Sinnar**

SAVITRIBAI PHULE PUNE UNIVERSITY PUNE

MARATHA VIDYA PRASARAK SAMAJ , NASHIK

G.M.D. ARTS , B.W. COMMERCE AND SCIENCE

COLLEGE, SINNAR, TAL - NASHIK - 4221

# CERTIFICATE

DEPARTMENT OF ZOOLOGY

This is to certify that the work incorporated in the dissertation entitled

## **STUDY OF FRESH WATER PROTOZOA FROM POND WATER ECOSYSTEM OF MY COLLEGE**

Was satisfactory carried out by MISS. DESHMUKH SHRADDHA SOMNATH of **BSc-ZOOLOGY** . She has completed this project under my supervision and guidance YEAR 2021-2022 . This Project work submitted by her is Original and the scientific information obtain from other sources have been duly acknowledged

  
Prof. Sanjay Pekhale.

( Project Guide)

  
Examiner.

  
DR. P.R. KOKATE

( HOD)



# Acknowledge

It gives me great pleasure to take the opportunity to expressly sincere. Thanks to my research guide **Prof. Sanjay pekhale** sir for his encouragement guidance, his constructive suggestions, and all sorts of help ever since the very inception of the study.

I am thankful to Dr.P.V.Rasal principal of G.M.D. Arts B.W commerce and science college, sinnar. for providing necessary facilities to carry out project. work. I equally thankful to the **Dr. P.P.kokate**, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and kind cooperation during the project.

am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of

my life.

Finally, here I took an opportunity to thanks to all wishers for their compliments.

Place : P.G. Dept. of zoology.

G.M.D. Arts B.W. Commerce Science College

Date :

Miss. Shraddha somnath Deshmukh

T.Y BSc Zoology



SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK

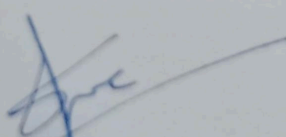
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNER, TAL-SINNAR, DIST-NASHIK

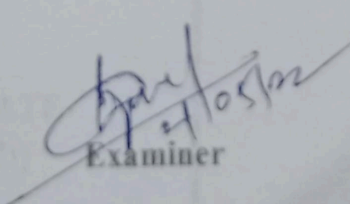
CERTIFICATE

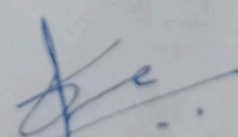
This is to certify that the work incorporated in the  
dissertation entitled

**CAMPARTIVE STUDY OF STRUCTURAL CHANGES  
OF THE WING FEATHER OF CHICKEN TO HEN**

Was satisfactorily carried out by MS. MADHURI BHAUSAHEB ANAP  
of BSC-ZOOLOGY. He has completed this project under my supervision and  
guidance during academic YEAR 2021-2022. This Project work Submitted by his  
is Original and the scientific information obtain from other sources have been duly  
acknowledged.

  
P.R KOKATE  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATE  
(HOD)

## *Acknowledgment.*

The given great pleasure to take the opportunity to express my sincere. Thanks suggestions and all stors of help ever the very inception of the study.

I am thankful so Dr.P.V.Rasal. principal of G.M.D Arts B.W commerce and science College sinnar. Providing necessary facilities to carry out project work. I equally thankful to the Dr.P

R.Kokate ,head department of zoology for providing library facilities and guidance in completing the above project work. I express my thanks so all my respected teachers and non - teaching staff of department of zoology for all the help and kindo co - operation during the project .

I am greatly indebted to my parents for their continuous support , wholehearted encouragement . Funding all my education and project work and constant source of inspiration in each step of my life.

Finally ,here I took an apportunity to thanks to all wishes for their compliments.

Place :P.G. Dept.of Zoology  
G.M.D.Arts .B.M.commers Science  
College.

Anap Madhuri Bhausahab  
T.Y.BSC  
Zoology.



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



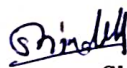
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE

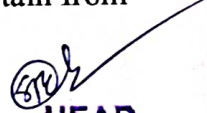
This is to certify that the work incorporated in the  
dissertation entitled

*STUDY OF LIFE CYCAL OF LEPIDOPTERAN AND  
COLEOPTERAN INSECTS FROM MUSALGAON M.I.D.C*

Was satisfactorily carried out by MISS. Rathod Paval Dharampalsing of  
**BSC-ZOOLOGY**. She has completed this project under my supervision  
and guidance during academic **YEAR 2021-2022**. This Project work  
Submitted by her is Original and the scientific information obtain from  
other sources have been duly acknowledged.

  
Smt. Jayashree Shinde  
(Project Guide)

  
Examiner

  
HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, B.W. Commerce  
and Science College, Sinnar  
DR. P.R. KOKATE  
(HOD)



## Acknowledgement :

It gives me great pleasure to take the opportunity to express my sincere. Thanks to my research guid **Mrs.Jayashree Shinde** for her encouragement guidance, her constructive suggestions and all sorts of help ever since the very inception of the study.

I am thankful to **Dr.P.V.Rasal**. Principal of G.M.D. Arts B.W commerce and science college, sinnar. For providing necessary facilities to carry out project. Work. I equally thankful to the **Dr. P.R kokate**, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of zoology for all the help and kind co-operation during the project.

I am very thank full to my mother for her continuous support and enjoyable help throughout the project work.

I am greatly indebted to my parents for their continuous support, wholehearted encouragement. Funding all my education and project work and constant source of inspiration in each step of my life.

Finally, here I take an opportunity to thanks to all wishers for

Their compliments.

Place: P.G. Dept. Of zoology.

G.M.D. Arts B.W.commerce science college

Date: 21-5-22

Miss . **Rathod Payal Dharampalsing**

T.Y BSC Zoology

G.M.D. ARTS BW, COMMERCE & SCIENCE COLLEGE SINNAR

**CERTIFICATE**

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

This is to certify that the work incorporated in the dissertation entitled

**Birds diversity** Was satisfactorily carried out by Miss Avhad kavita balasaheb of T.Y.

Condition

B.sc. Zoology. She is bonafide student of this college. She Has completed this project under my supervision and guidance during academic year 2021-2022. This project work Submitted by her is original and the scientific information's obtained from other sources have been duly acknowledged.



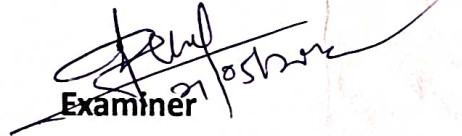
**Prof. Arti tidme.**

**(Project Guide).**



**Dr.P.R.kokate**

**(HOD).**



**Examiner**



# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK



G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

## CERTIFICATE

This is to certify that the work incorporated in the  
dissertation entitled


*Study of life cycle of lady bird beetle*

Was satisfactorily carried out by MR. Dhoble shivprasad sanjay\_\_\_\_\_

of BSC-ZOOLOGY. He has completed this project under my supervision and guidance during academic YEAR 2021-2022. This Project work Submitted by his is Original and the scientific information obtain from other sources have been duly acknowledged.

Prof. VIKAS VARPE  
(Project Guide)

  
Examiner

  
HEAD  
DEPARTMENT OF ZOOLOGY  
G.M.D. Arts, (HOD) Commerce  
and Science College, Sinnar



# ACKNOWLEDGEMENT

I would like to thank the almighty for this constant grace showed on me and this increasing gift of knowledge and strength that has relentlessly prevailed my life through the entire project work. It was such an honors and privilege for me to collect information for these projects and share with the class.

I would have not completed my project without the help and cooperation of certain people. I acknowledge my sincere thanks to **Prof. Vikasvarpe** for his guidance that made me materialize this project. Finally, I'm also thankful to my parents and friends for their encouragement and support.

I would like to thank **Dr. P. R KOKATE**, head of zoology department and principal for the guidance and support they have provided during the project

Mr dhobleshivprasadsanjay

# SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



MARATHA VIDYA PRASARAK SAMAJ, NASHIK




G.M.D.ARTS, B.W.COMMERCE AND SCIENCE  
COLLEGE, SINNAR, TAL-SINNAR, DIST-NASHIK

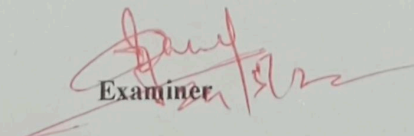
## CERTIFICATE

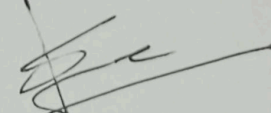
This is to certify that the work incorporated in the  
dissertation entitled

*MORPHOLOGICAL STUDY OF DIFFERENT TYPES OF HEAD  
CAPSULE OF ANY FIVE INSECTS*

Was satisfactorily carried out by MISS. Gupta Anchal Mahajan of BSC-  
**ZOOLOGY**. She has completed this project under my supervision and  
guidance during academic **YEAR 2021-2022**. This Project work Submitted  
by her is Original and the scientific information obtain from other sources  
have been duly acknowledged.

  
Mr. P.R. Kokate  
(Project Guide)

  
Examiner

  
DR. P.R. KOKATE  
(HOD)



## Acknowledgement :

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Their compliments.

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## CERTIFICATE

DEPARTMENT OF ZOOLOGY

**This is to certify that the work incorporated in the  
dissertation entitled**

Was satisfactorily carried out by MISS.More Saloni Ashok of B.Sc-  
**ZOOLOGY**. She has completed this project under my supervision and  
guidance during academic **YEAR 2021-2022**. This Project work Submitted by  
her is Original and the scientific information obtain from other sources have  
been duly acknowledged.

*Arti Tidme*  
23/05/22  
Miss. Arti Tidme  
(Project Guide)

*[Signature]*  
23/5/22  
Examiner

*[Signature]*  
DR. P.R. KOKATE  
(HOD)

# Title

THE STUDY OF  
DIFFERENT TYPES OF  
INSECT AND LEGS



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It gives me great pleasure to take the opportunity to express my sincere. Thanks to my research guide Miss.Tidme mam for her encouragement guidance, his constructiMve suggestions, and all sorts of help ever since the very inception of the study.I am thankful to Dr.P.V.Rasal principal of G.M.D. Arts B.W commerce and science college, sinnar. for providing necessary facilities to carry out project. work. I equally thankful to the Dr. P.P.kokate, Head of the Department of Zoology for providing library facilities and guidance in completing the above project work. I express my thanks to all my respected teachers and non-teaching staff of Department of Zoology for all the help and kind cooperation during the project.

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