



THE ASSAM  
ROYAL GLOBAL UNIVERSITY  
— GUWAHATI —

# CRITERION 1

## CURRICULAR ASPECTS

METRIC NO.  
1.3.3

### M. Sc. Zoology

Field Work / Research Project / Internship





**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

**“EVALUATION OF SEMEN CHARACTERISTICS OF RANDOM POPULATION IN AN  
AROUND GUWAHATI, ASSAM”**

**A DISSERTATION SUBMITTED TO THE ASSAM ROYAL GLOBAL UNIVERSITY,  
ASSAM, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF  
MASTER OF SCIENCE OF ZOOLOGY**

**SUBMITTED BY**

**HIMADRI BORAH**

**ROLL NUMBER: 184142020**

**REG NO: 1181000**

**UNDER THE SUPERVISION OF**

**DR. ARIJIT CHAKRABORTY**

**DEPARTMENT OF ZOOLOGY**

**THE ASSAM ROYAL GLOBAL UNIVERSITY**

**ASSAM**





ROYAL GLOBAL UNIVERSITY  
GUWAHATI

THE ASSAM ROYAL GLOBAL UNIVERSITY  
ROYAL SCHOOL OF LIFE SCIENCES  
Guwahati -781035, Assam, India

### CERTIFICATE

This is to certify that *HIMADRI BORAH* a student in the Department of Zoology P.G. 4<sup>th</sup> Semester bearing Roll No- 184142020 and Registration No-1181000 of 2018-20 carried out the Project work entitled "*EVALUATION OF SEMEN CHARACTERISTICS OF RANDOM POPULATION IN AN AROUND GUWAHATI, ASSAM*" under my guidance. She/he has done all the experiments and sample collections in an ethical manner of The Assam Royal Global University. This Project records are prepared by himself/herself along with her group as per the requirement for the partial fulfillment of M.Sc. (Zoology) Degree as per the necessity of the syllabus and no part of the report is placed anywhere and in any form for any Degree.

I wish him/her success and best wishes for him/her future life.

Signature of project guide -

(Dr. ARIJIT CHAKRABORTY)

Asst. Professor, Department of Zoology,

The Assam Royal Global University

Signature of HOD

( Dr. SUSMITA DEY )

Department of Zoology,

The Assam Royal Global University  
HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035

Examined  
18.06.2020



# ROYAL GLOBAL UNIVERSITY

— — — — —  
GUWAHATI

## Dissertation Topic

**“EVALUATION OF SEMEN CHARACTERISTICS OF RANDOM  
POPULATION IN AN AROUND GUWAHATI, ASSAM”**

**Submitted to the Department of Zoology-  
THE ASSAM ROYALGLOBALUNIVERSITY**

**Super-Vision By:**

**Dr. ARIJIT CHAKRABORTY**

Asst. Professor, Department of Zoology

Royal School of Life Sciences

**Submitted By-**

**ANJUARA BEGUM**

Roll No. - 184142003

Regd. No. -1180983

Dept. of Zoology

Royal School of Life Science



ROYAL GLOBAL UNIVERSITY  
GUWAHATI

# THE ASSAM ROYAL GLOBAL UNIVERSITY

ROYAL SCHOOL OF LIFESCIENCES

Guwahati -781035, Assam, India

## CERTIFICATE

This is to certify that *ANJUARA BEGUM* a student in the Department of Zoology P.G. 4<sup>th</sup> Semester bearing Roll No- 184142003 and Registration No-1180983 of 2018-20 carried out the Project work entitled "*EVALUATION OF SEMEN CHARACTERISTICS OF RANDOM POPULATION IN AN AROUND GUWAHATI, ASSAM*" under my guidance. She/he has done all the experiments and sample collections in an ethical manner of The Assam Royal Global University. This Project records are prepared by himself/herself along with her group as per the requirement for the partial fulfillment of M.Sc. (Zoology) Degree as per the necessity of the syllabus and no part of the report is placed anywhere and in any form for any Degree.

I wish him/her success and best wishes for him/her future life.

Signature of project guide -

(Dr. ARIJIT CHAKRABORTY)

Asst. Professor, Department of Zoology,

The Assam Royal Global University

Signature of HOD

( Dr. SUSMITA DEO )

Department of Zoology,

The Assam Royal Global University  
HOD/Coordinator

Department of Zoology

Royal School of Life Sciences

The Assam Royal Global University

Betkuchi, NH 37, Guwahati 781035

Examined  
ASD  
16.06.20



# A REVIEW STUDY ON THE PROTOZOAN AND FUNGAL FISH DISEASES PREVALENT IN INDIA



ROYAL GLOBAL UNIVERSITY  
— GUWAHATI —

Submitted by

Kashmiri Saikia

M.Sc Zoology 4<sup>th</sup> Semester

Roll No-184142026

Registration No-1181005

Supervised By

Miss Dipanneeta Das Gupta

Assistant Professor

Department of Zoology

The Assam Royal Global University



ROYAL GLOBAL UNIVERSITY  
GUWAHATI

## CERTIFICATE

This is to certify that Kashmiri Saikia , Roll No- 184142026 ,a student of M.Sc Zoology 4<sup>th</sup> semester has successfully completed the project on the topic“**A REVIEW STUDY ON PROTOZOAN AND FUNGAL FISH DISEASES PREVALENT IN INDIA**” under the guidance of Miss Dipanneeta Das Gupta (Department of Zoology) during the year 2019-2020 .

This is also to certify that this project report is an original project submitted as a part of the curriculum with all the formalities as per the requirements. All references have been duly acknowledged.

Signature of project guide

Signature of HOD

HOD/Coordinator

Department of Zoology

Royal School of Life Sciences

The Assam Royal Global University

Betkuchi, NH 37, Guwahati 781035

*Handwritten signature and date: 16-06-2020*

# **BIODIVERSITY STUDY OF ORTHOPTERA IN KAMRUP (RURAL) DISTRICT OF ASSAM**



**ROYAL GLOBAL UNIVERSITY**  
— GUWAHATI —

**Project Report Submitted To The Assam Royal Global University For The Fulfilment of  
Prescribed Syllabus Of M.Sc Course in Zoology.**

**Submitted By-**

**NEHA PRITAM KASHYAP**

**Roll No-184142035**

**Reg No- 1181013**

**Supervised By-**

**Dr. SUSMITA DEY**

**HOD, Assistant Professor**

**Department of Zoology**

**Royal School of Life Sciences**

**The Assam Royal Global University**

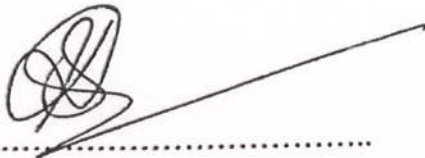
**Year-2020**



## CERTIFICATE

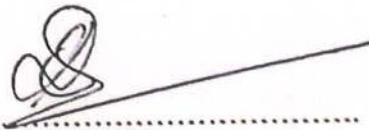
This is to certify that the project report entitled, "*Biodiversity Study of Orthoptera in Kamrup (Rural) District of Assam*" is the outcome of a bona fide work done by *Neha Pritam Kashyap* bearing Roll No- 184142035 in partial fulfilment of the requirements for the award of the degree **Master of Science in Zoology** during the year **2018-2020**. This work has not been submitted previously for any other degree in any other university. It is further certified that the candidate has complied with all the formalities as per the requirements of The Assam Royal Global University, Guwahati.

Signature of Project Supervisor



Dr. Susmita Dey  
HOD, Assistant Professor  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University

Signature of Head of the Department



Dr. Susmita Dey  
HOD, Assistant Professor  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035

Examined

16-06-2020

**“ENTOMOPHAGY WITH SPECIAL REFERANCE TO MAJULI  
DISTRICT (RURAL), ASSAM”**

**Submitted to the Department of Zoology  
In partial fulfillment of the requirement for M.Sc. (Zoology) course,  
The Assam Royal Global University**



**ROYAL GLOBAL UNIVERSITY**  
— GUAHATI —

***Submitted by:***

**INDUBHUSHAN KALITA  
M.SC ZOOLOGY 4<sup>TH</sup> SEMESTER  
ROLL NO: 1814142022  
Reg. No-1181002  
RSLSC**

***Submitted to:***

**DR. MITRAJIT DEB.  
ASST. PROF. OF RGU  
THE ASSAM ROYAL GLOBAL  
UNIVERSITY**



**THE ASSAM ROYAL GLOBAL UNIVERSITY**  
**ROYAL SCHOOL OF LIFE SCIENCE**  
**GUWAHATI-781035, ASSAM, INDIA**

**CERTIFICATE**

This is to certify that INDUBHUSHAN KALITA a student in the Department of zoology P.G 4<sup>TH</sup> Semester bearing Roll No 184142022 and Registration No 1181002 of 2018-20 carried out the project work under my guidance. He has done all the experiments and sample collections in an ethical manner of THE ASSAM ROYAL GLOBAL UNIVERSITY. This project records are prepared by himself as per the requirement for the partial fulfillment of M.Sc. (Zoology) Degree as per the necessity of the syllabus and no part of the report is placed anywhere and in any form for any Degree

I wish him success and best wishes for his/her future life.

*Mitrajit Deb*

(Dr Mitrajit Deb)

Asst. professor, Department of zoology  
THE ASSAM ROYAL GLOBAL UNIVERSITY

*Soop*

HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035

*Examined*  
*16.06.2020*





**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

**Dissertation Topic**

**“Study on Fish Diversity and Seasonal variation of fish species found  
in Bogibeel, Dibrugarh , Assam”**

A Project Report

Submitted in partial fulfillment of the requirement for the

**DEGREE OF**

**MASTER OF SCIENCE IN ZOOLOGY**

**To The Assam Royal Global University, Assam**

Supervised by –

**Dr. SUSMITA DEY**

Head of Department,

Department of Zoology

Royal School of Life Science

Submitted by -

**IPSHITA PHUKAN**

Roll No: 194142021

Reg. No : 1191218

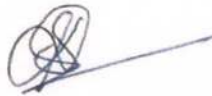
M.Sc 4<sup>th</sup> Semester (Dept. of Zoology)

### Certificate

This is to certify that the dissertation project on the topic "*Fish diversity and seasonal variation of fish species found in Bogibeel, Dibrugarh , Assam*" written and submitted by Miss Ipshta Phukan (194142021), student of M.Sc 4th semester Department of Zoology , Royal School of Life Science, The Assam Royal Global University is a genuine record of the project done by her under my guidance and supervision during the academic session of 2020 -2021.

She has fulfilled all the requirements of the project work under The Assam Royal Global University.

The project is the result of her own observation .



Signature of the Supervisor

*Examined  
Rezina Ahmed*

Date : 18/11/21

HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Beti Jctii, NH 37, Guwahati 781035



ROYAL GLOBAL UNIVERSITY  
GUWAHATI

Disseratation topic:

*To identify causative factors for idiopathic male infertility with special reference to semen analysis in Guwahati metropolitan Area, Assam*

*Supervised by:*  
*Dr. Susmita Dey, H.O.D. of Zoology dept.*  
*Royal School of life science.*

*Co-Supervised by:*  
*Dr. Arijit Chakraborty, Former Asst. Prof.*  
*dept. of Zoology*

**Submitted By:**

*Begom Roushanara Ahmed*

*Roll No: 194142009*

*Regn. No : 1191206*

*Dept. of Zoology*

*Royal School of Life Science*





## THE ASSAM ROYAL GLOBAL UNIVERSITY

ROYAL SCHOOL OF LIFE SCIENCE  
GUWAHATI-781035 ,ASSAM,

### CERTIFICATE

This certify that Begom Roushanara Ahmed a student in the department of Zoology P.G. 4<sup>th</sup> sem. bearing roll no-194142009 and regd. No- 1191206 carried out the project work entitled" To identify causative factors for idiopathic male infertility with special reference to semen analysis in Guwahati metropolitan Area, Assam " under my guidance. She/he has done all the experiments and sample collection in an ethical manner of the Assam Royal global university. This projects records are prepared by himself/herself along with her group as per requirements for the partial fulfillment of MSc Zoology Degree as per necessity of the syllabus and no part of the report anywhere and in my form for any degree.

I wish him /her success and best wishes for him or her future life

Examined  
Rezina Ahmed

Signature of project guide

(Dr. Susmita Dey, HOD of Zoology dept.)

**The Assam Royal Global University**

Co-supervised by-

(Dr. Arijit Chakrabarty, former Asst. prof.)

**The Assam Royal Global University**

**HOD/Coordinator**

**Department of Zoology**

**Royal School of Life Sciences**

**The Assam Royal Global University**  
Betkuchi, NH 37, Guwahati 781035

**A study on**  
**A demographic study to develop a prediction tool for liver**  
**disease in different ethnic groups of Assam**

**A Report submitted in partial fulfillment of the requirements for the degree of**  
**Master of Science**

**Under**



**ROYAL GLOBAL UNIVERSITY**  
**GUWAHATI**

**UNDER THE SUPERVISION OF:**

**Dr. Susmita Dey**  
**Coordinator, Assistant Professor**  
**Department of Zoology**  
**Royal School of Life Sciences**  
**The Assam Royal Global University, Guwahati**

**UNDER THE CO-SUPERVISION OF:**

**Dr. Dola Das**  
**Adjunct Assistant Professor**  
**Research Associate of Biomedical Engineering**  
**Lerner College of Medicine, Cleveland Clinic, Ohio**

**SUBMITTED BY:**

**Bandana Sarma**  
**School: Royal School of Life Sciences**  
**Department: Zoology**  
**Programme: M.Sc.**  
**Registration No.: 1191204**  
**Roll no: 194142007**  
**The Assam Royal Global University**  
**Session : 2019-21**

## CERTIFICATE

This is to certify that the dissertation report entitled "A demographic study to develop a prediction tool for liver disease in different ethnic groups of Assam" is an original project work carried out and submitted by Bandana Sarma, Roll No-194142007, Registration No-1191204, is a regular student of the Department of Zoology, Royal School of Life Sciences, in partial fulfillment of the requirement for the award of the degree of Master of Science under The Assam Royal Global University, Guwahati during the year 2021, under my supervision.

*Examined  
Lezina Ahmed*

 16/11/21

Signature of Project supervisor and HoD

Dr. Susmita Dey

Coordinator

Assistant Professor

Department of Zoology

Royal School of Life Sciences

The Assam Royal Global University

HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035





**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

**STUDY ON**  
**“EFFECT'S OF BIOFLOC ON GROWTH OF FISH (*Labeo bata*)”.**  
**A REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIRMENTS**  
**FOR THE DEGREE OF MASTER OF SCIENCE OF ZOOLOGY.**

**UNDER THE GUIDANCE,OF**  
**DR.SUSMITA DEY**  
**DR.ARIJIT CHAKRABORTY**  
**DEPARTMENT OF ZOOLOGY**  
**ROYAL SCHOOL OF LIFE SCIENCE**  
**ROYAL GLOBAL UNIVERSITY, GUWAHATI.**

**SUBMITTED BY**

**AZMINA KHATUN**  
**Roll No. 194142005**

CERTIFICATE

This is Certified that the Project/dissertation on the topic "Effect's of biofloc on growth of fish", submitted by Azmina Khatun (194142005), students of M.Sc Zoology. I hereby certify that the Project/dissertation titled "Effect's of biofloc on growth of fish (*Labeo bata*)", submitted to the Department of Zoology, Royal School of Life Sciences, The Assam Royal Global University, has been carried out by them under my supervision.



(Name and Signature of Supervisor)

Dr. Susmita Dey

Date: 08/11

Place: Guwahati

Examined  
Rozina Ahmed

HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035



**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

**STUDY ON**  
**“EFFECT'S OF BIOFLOC ON GROWTH OF FISH (*Labeo bata*)”.**  
**A REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIRMENTS**  
**FOR THE DEGREE OF MASTER OF SCIENCE OF ZOOLOGY.**

**UNDER THE GUIDANCE OF**  
**DR.SUSMITA DEY**  
**DR.ARIJIT CHAKRABORTY**  
**DEPARTMENT OF ZOOLOGY**  
**ROYAL SCHOOL OF LIFE SCIENCE**  
**ROYAL GLOBAL UNIVERSITY, GUWAHATI.**

**SUBMITTED BY**

**MONIR HASAN**

**Roll No. 194142033**



## CERTIFICATE

This is Certified that the Project/dissertation on the topic "Effect's of biofloc on growth of fish", submitted by Monir Hasan (194142033), students of M.Sc Zoology. I hereby certify that the Project/dissertation titled "Effect's of biofloc on growth of fish (*Labeo bata*)", submitted to the Department of Zoology, Royal School of Life Sciences, The Assam Royal Global University, has been carried out by them under my supervision.



(Name and Signature of Supervisor)

Dr. Susmita Dey

Examined  
Rezina Ahmed

Date: 05/11/21

Place: Guwahati

HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035

**A study on**

**COMPARATIVE ANALYSIS OF LENGTH-WEIGHT RELATIONSHIP OF *Labeo rohita*  
IN THREE DIFFERENT PLACES OF ASSAM**

**A Report submitted in partial fulfillment of the requirements for the degree of M.Sc Zoology**

**Under**



**THE ASSAM**

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**ROYAL GLOBAL UNIVERSITY**

**Submitted by:**

**Name: Aysha Siddika**

**School: Royal School of Life Science**

**Department: Zoology**

**Programme: Masters of Science**

**Registration No.:1201337**

**Roll No: 204142007**

CERTIFICATE

This is to certify that Aysha Siddika, a student of M.Sc Zoology (4<sup>th</sup> semester), bearing Roll No.: 204142007 has Successfully completed the Project “COMPERATIVE ANALYSIS OF LENGTH WEIGHT RELATIONSHIP OF Labeo rohita IN THREE DIFFERENT PLACE OF ASSAM”, under the guidance of Dr. Susmita Dey.

The project report is the record of authentic work carried out by him/her during the period from 2021 to 2022

*Susmita Dey*  
28/7/22

Dr. Susmita Dey

HOD/Coordinator  
(Head of the Department)  
Department of Zoology  
Royal School of Life Sciences  
Department of Zoology, The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035  
Royal School of Life Science

The Assam Royal Global University

*Susmita Dey*  
28/7/22

Dr. Susmita Dey

(Project Guide)

Head of the Department

Royal School of Life Science

The Assam Royal Global University

*Examined*  
*Susmita Dey*  
28/07/2022



**A STUDY ON BIODIVERSITY OF ARACHNIDA IN AHOM GAON,  
KAMRUP, ASSAM**

A dissertation submitted for the partial fulfilment of the requirements for the degree of  
Masters of Science in Zoology

Offered by

**THE ROYAL SCHOOL OF LIFE SCIENCES**

**Submitted by:**

Name: Jitumani Nath

Registration No.: 1201344

Roll No.: 204142014

**Academic project guide:**

Name: **DR. MITRAJIT DEB**

Designation: Assistant Professor

Department of zoology

Royal school of life sciences

• The Assam Royal Global University

## CERTIFICATE

I hereby certify that the project report/dissertation, "*A study on diversity of Arachnida in Ahom Gaon, Kamrup, Assam*" by Jitumani Nath bearing roll no. 204142014 and registration no. 1201344 in partial fulfilment of the requirements for the award of the degree **Masters of Science (Zoology)** during the year **2020-2022** in The Assam Royal Global University is a record of bona fide research work under my supervision and guidance and that it has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title recognition. It is further certified that the candidate has complied with all the formalities as per the requirements of the university.

Mitrajit Deb.  
28-07-22

Sushmita Dey  
28/7/22

**Dr. Mitrajit Deb**

**Dr Sushmita Dey**

Supervisor/Guide

Head of the Department

HOD/Coordinator

Department of Zoology

Assistant Professor

Assistant Professor

Royal School of Life Sciences

Department of Zoology

The Assam Royal Global University

Betuli, Kamrup, Assam - 781035

Royal School of Life Sciences

Royal School of Life Sciences

The Assam Royal Global University

The Assam Royal Global University

Examined  
J  
28/07/22

A study on

**COMPARATIVE ANALYSIS OF LENGTH-WEIGHT  
RELATIONSHIP OF *Labeo rohita* IN THREE DIFFERENT PLACES  
OF ASSAM**

A Report submitted in partial fulfillment of the requirements for the degree of M.Sc  
Zoology

Under



THE ASSAM

ROYAL GLOBAL UNIVERSITY

Submitted by:

Name: Mehezubin Sultana

School: Royal School of Life Science

Department: Zoology

Programme: Masters of Science

Registration No.:1201348

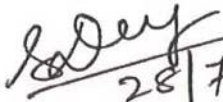
Roll No: 204142018



**CERTIFICATE**

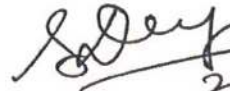
This is to certify that Mehezubin Sultana a student of M.Sc Zoology (4<sup>th</sup> semester), bearing Roll No.: 204142018 has Successfully completed the Project “COMPERATIVE ANALYSIS OF LENGTH WEIGHT RELATIONSHIP OF Labeo rohita IN THREE DIFFERENT PLACE OF ASSAM”, under the guidance of Dr. Susmita Dey.

The project report is the record of authentic work carried out by him/her during the period from 2021 to 2022

  
28/7/22

Dr. Susmita Dey

HOD/Coordinator  
(Head of the Department)  
Department of Zoology  
Royal School of Life Science:  
Department of Zoology  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035  
Royal School of Life Science

  
28/7/22

Dr. Susmita Dey

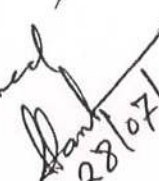
(Project Guide)

Head of the Department

Royal School of Life Science

The Assam Royal Global University  
HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035

The Assam Royal Global University

Examined  
  
28/07/2022

CERTIFICATE

This is to certify that UMMAH HABIBA ISLAM, a student of M.Sc Zoology (4<sup>th</sup> semester), bearing Roll No.: 204142041 has Successfully completed the Project "AN ASSESSMENT OF AVIAN ASSEMBLAGE IN DEEPOR BEEL RAMSAR SITE) KAMRUP, ASSAM", under the guidance of Dr. Mitrajit Deb.

The project report is the record of authentic work carried out by him/her during the period from 2021 to 2022

*Susmita Dey*  
28/7/22

Dr. Susmita Dey

(Head of the Department)

Department of Zoology

Royal School of Life Science

The Assam Royal Global University

HOD/Coordinator

Department of Zoology

Royal School of Life Sciences

The Assam Royal Global University  
Betkuchi, NH 37, Guwahati 781035

*Deb.*  
28-07-22

Dr. Mitrajit Deb

(Project Guide)

Assistant professor

Royal School of Life Science

The Assam Royal Global University

*Examined*  
28/07/22

**STUDY OF DIFFERENT TYPE OF FISHING GEARS AND THEIR  
FISHING METHODS IN DHEMAJI DISTRICT**



**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

*Examined*  
*[Signature]*  
*21/06/2023*

**Submitted By-**

**TILESWAR BURAGOHAJN**

**M.Sc Zoology 4<sup>th</sup> Semester**

**Roll No- 204142039**

**Registration No- 1201369**

**Department of Zoology**

**The Assam Royal Global University, Guwahati**

**Supervised By-**

**Dr. Susmita Dey**

**(Head of the Department, zoology)**



## CERTIFICATE

This is to certify that the dissertation submitted by, TILESWAR BURAGOHAIN, student of M.Sc 4<sup>th</sup> semester entitled, 'A STUDY ON DIFFERENT TYPE OF FISHING GEARS AND THEIR FISH CATCHING METHODS IN DHEMAJI DISTRICT' to the department of Zoology, Royal School Of Life Science, The Assam Royal Global University, in the partial fulfilment for the award of the Degree of Masters in Science in Zoology has been examined by us and found to be satisfactory.

The committee recommends for the award of the degree of M.Sc. in Zoology.

Supervisor

External Examiner

Date : 19.06.2023

Date-21-06-2023

*Deb.*  
*19-06-23*  
Head of The Department

The Assam Royal Global University,

Date : 19.06.2023

HOD/Coordinator  
Department of Zoology  
Royal School of Life Sciences  
The Assam Royal Global University  
Dakshin, NH 37, Guwahati 781035

**A Study on**  
**The diversity of Odonata in Garoghuli, Kamrup (M), Assam, India**  
A dissertation submitted in partial fulfillment of the requirement for the degree of  
Masters of Science in Zoology



**ROYAL GLOBAL UNIVERSITY**

**GUWAHATI**

**Submitted By:**

Clinton Moirangthem

Registration No: 1180488

Roll No: 214142008

**Under the supervision of**

Dr Mitrajit Deb,

Assistant Professor and Co-ordinator

Royal School of Life sciences

The Assam Royal Global University

Betkuchi, Guwahati- 781035

Assam, India

2021-2023

*Clinton Moirangthem*  
*21/6/2023*



**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

**CERTIFICATE**

I would like to certify that the project work entitled “A study on the diversity of Odonata in Garoghuli area, Kamrup (M), Assam” under the guidance and supervision of bonafide work by Clinton Moirangthem, Roll numbr 21414208, Registration number 1180488, M.Sc. Zoology 4<sup>th</sup> semester, Royal school of Life Sciences. This report is carried out in partial fulfillment of M.Sc. course of The Assam Royal Global University.

The dissertation work is original and the facts and the findings submitted in the report are entirely the work of the student.

This dissertation report is the record of authentic work carried out by him during the dissertation work period from October 2022 – March 2023.

He has worked under the guidance of Dr. Mitrajit Deb.

Project Guide:

.....  
*Deb.*  
*20-06-23*

**Dr. Mitrajit Deb**

Assistant Professor and Coordinator

Department of Zoology

Royal School of Life Sciences

The Assam Royal Global University

Guwahati, Assam - 781035

HOD/Coordinator  
Department of Zoology  
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The Assam Royal Global University  
Guwahati, NH 37, Guwahati 781035

**Assessment of the staining potential of rhizome of *Curcuma longa* and petals of *Clitoria ternatea* in different cells and tissues**

A report submitted in partial fulfillment of the requirements for the degree of M.Sc. in  
Zoology under The Assam Royal Global University

Examined by  
Dr. Ananya Phuah



**ROYAL GLOBAL UNIVERSITY**  
GUWAHATI

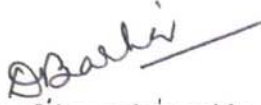
**SUBMITTED BY:**

Ananya Chamuah  
Royal School of Life Sciences  
Department of Zoology  
Registration no :1211556  
Roll no 214142001



**CERTIFICATE**

This is to certify that Ananya Chamuah, a student of M. Sc Zoology, 4<sup>th</sup> semester bearing Roll No.: 214142001 has successfully completed the project "**Assessment of the staining potential of rhizomes of *Curcuma longa* and petals of *Clitoria ternate* in different cells and tissues**" under the guidance of Dr. Dharmeswar Barhoi, Assistant Professor, Department of Zoology and co-guidance of Ms. Sangeeta Biswas, Assistant Professor, Department of Zoology, The Assam Royal Global University.



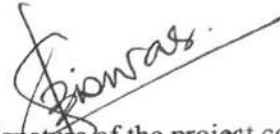
Signature of the project guide

Dr. Dharmeswar Barhoi

Assistant Professor

Department of Zoology

The Assam Royal Global University



Signature of the project co-guide

Ms. Sangeeta Biswas

Assistant Professor

Department of Zoology

The Assam Royal Global University



HOD/Coordinator

Department of Zoology

Royal School of Life Sciences

The Assam Royal Global University

Betkuchi, NH 37, Guwahati 781035

Study on

**The Lepidoptera: Rhopalocera diversity and abundance in Gotanagar, Assam**

A dissertation submitted in the partial fulfillment of the requirements for the degree of Master of  
Sciences in Zoology

Under



*Greening*  
*[Signature]*  
*21/06/2023*

Submitted by

**Name: Bhitali Barkakati**

**School: Royal School of Life Sciences**

**Department: Zoology**

**Programme: Mater of Sciences**

**Registration No.: 1180487**

**Roll No.: 214142006**

## CERTIFICATE

I would like to certify that the project work entitled "**Study on the Lepidoptera: Rhopalocera diversity and abundance in Gotangar, Assam**" under the guidance and supervision of bonafide work by Bhitoli Barkakati, Roll No. 214142006, Registration No.: 1180487, M.Sc. Zoology 4<sup>th</sup> semester, Royal School of Life Sciences. This report is carried out in partial fulfillment of M.Sc. course of Royal Global University.

This work is original, and the facts and findings submitted in the report are entirely the work of the student.

This project report is the record of authentic work carried out by her during the period from October 2022- March 2023.

She has worked under the guidance of Dr. Mitrajit Deb.

Project Guide:

*Deb.*

.....  
Dr. Mitrajit Deb

Assistant Professor and Coordinator

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21-06-2023  
Coordinator  
Department of Zoology  
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Guwahati, NH 37, Guwahati 781035

**A study on Green synthesis of Silver nanoparticles from *Enhydra fluctuans* leaf extract and to study its antioxidant potentials and antibacterial properties using *Bacillus subtilis*.**

(A report submitted for partial fulfillment of the requirement for the degree of Masters of Science in Zoology)



**ROYAL GLOBAL UNIVERSITY**  
— GUWAHATI —

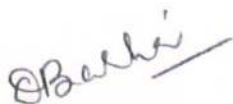
**SUBMITTED BY:**

Ananya Mukhopadhyay  
Royal School of Life Science  
Department of Zoology  
M.Sc. Zoology  
Registration No.: 1211557  
Roll No.: 214142002



## CERTIFICATE

This is to certify that the project report entitled "A study on Green synthesis of Silver nanoparticles from *Enhydra fluctuans* leaf extract and to study its antioxidant potentials and antibacterial properties using *Bacillus subtilis*" submitted to the Department of Zoology, Royal School of Life Sciences, The Assam Royal Global University in fulfillment of the requirements of the Dissertation as a part of MSc. Zoology 4 Semester for Master's Degree in Zoology under RGU is a record of research work carried out by Ananya Mukhopadhyay, bearing Registration No. 1211557 and Roll No. 214142002 under my supervision and guidance. All help received by her during her project work has been duly acknowledged. No part of this report has been reproduced elsewhere for any other degree.



Signature of Project Guide

(Dr. Dharmeswar Barhoi)

Department of Zoology



Signature of Co-Project Guide

(Anurudha Chakraborty)

Department of Zoology



HOD/Coordinator  
Department of Zoology  
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Betkuchi, NH 37, Guwahati 781035

**A study on  
Developing of Urban Butterfly Garden in Arya Nagar, Guwahati, Assam**

A report submitted in partial fulfilment of the requirements for the degree of Master of  
Science in Zoology

Under



THE ASSAM

ROYAL GLOBAL UNIVERSITY

*Chanda Gowala*  
*21/06/2022*

Submitted by:

Name: Chanda Gowala

School: Royal School of Life Sciences

Department: Zoology

Programme: M.Sc (4<sup>th</sup> semester)

Registration No.: 1211561

Roll No.: 214142007

Academic Project Guide:

Name: Dr. Manoj Deb

Designation: Associate Professor and Co-ordinator

## CERTIFICATE

I would like to certify that the project work entitled "*A Study on Developing of Urban Butterfly Garden in Arya Nagar, Guwahati, Assam*" under my guidance and supervision is a bonafide work by Chanda Gowala, Roll No.: 214142007, Registration No.: 1211561, M.Sc Zoology (4<sup>th</sup> semester), Royal School of Life Sciences. This report is carried out in partial fulfillment of M.Sc course of The Assam Royal Global University.

This work is original, and the facts and findings submitted in the report are entirely the work of the student.

This project report is the record of authentic work carried out by her during the period from 2022-2023.

She has worked under the guidance of Dr. Mitrajit Deb.

Project Guide:

*Deb.*  
*20-06-23*

Dr. Mitrajit Deb

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