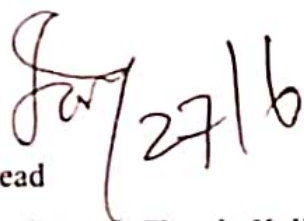




DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
GUWAHATI: 781014, ASSAM

CERTIFICATE

This is to certify that Ms. **AENDRILA ADHIKARY** bearing University Roll No: **PS-211-801-0001**, Department of Zoology, Gauhati University was allotted the project entitled "*A study on the effect of combined treatment of Irinotecan and Green Tea Extract in Allium cepa root tip cells*" for the partial fulfilment of the award of M. Sc degree in Zoology (**Specialization: Cell & Molecular Biology**). It is hereby certified that the results incorporated in this report are finding of the experiments conducted by the candidate herself and has not been presented elsewhere for the award of any degree.

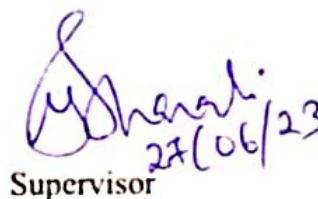


Head

Prof. Jogen Chandra Kalita

Professor

Department of Zoology


27/06/23

Supervisor

Dr. Manuj Kumar Bharali,

Associate Professor, Department of Zoology
Gauhati University
Guwahati, Assam



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
GUWAHATI: 781014, ASSAM

CERTIFICATE

This is to certify that Mr **ALIMPIKA BARUAH** bearing University Roll No: **PS-211-801-0003** Department of Zoology, Gauhati University was allotted the project entitled “**Effect of the food colour Allura Red AC on locomotion and protein carbonyl content in model organism *Caenorhabditis elegans***” for the partial fulfilment of the award of M. Sc degree in Zoology (**Specialization: Cell & Molecular Biology**). It is hereby certified that the results incorporated in this report are finding of the experiments conducted by the candidate himself/herself and has not been presented elsewhere for the award of any degree.

Head

Prof. Jogen Chandra Kalita

Professor

Department of Zoology

Supervisor

Dr. Banasri Mech

Assistant Professor

Department of Zoology

Dr. Manuj Kr. Bharali, Associate Professor

Cell and Molecular Biology Lab

Dept. Of Zoology, Gauhati University

Guwahati: 781014, Assam

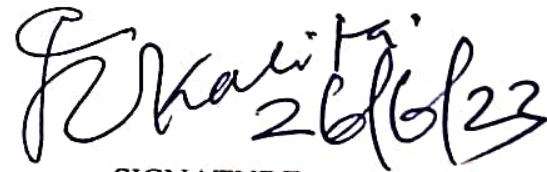
Email: manujkrbharali@gauhati.ac.in, M: +919436223708

CERTIFICATE

This is to confirm that the thesis entitled "EFFECT OF MALACHITE GREEN ON THE HEPATIC AND OVARIAN PHYSIOLOGY OF *Mus Musculus*" Submitted by Miss Alpana Choudhury, bearing Roll No: PS-211-801-0004 with Registration No: 18001257 is a record of original research work carried out by her under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University. The research outputs contained in the thesis is the outcome of her sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.

DATE:

PLACE:

 26/6/23

SIGNATURE
Professor & Head
Department of Zoology
Gauhati University
Guwahati- 781014, Assam.




DEPARTMENT OF ZOOLOGY

GAUHATI UNIVERSITY

GUWAHATI: 781014, Assam

CERTIFICATE

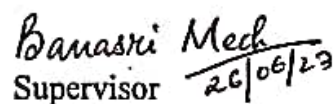
This is to certify that Miss ANKITA PANWAR bearing University Roll No: PS-211-801-0005 Department of Zoology, Gauhati University was allotted the project entitled "*Effect of Food Colour Sunset Yellow on Motility and Oxidative Stress Response in Caenorhabditis elegans*" for the partial fulfillment of the award of M.Sc degree in Zoology (Specialization: Cell & Molecular Biology). It is hereby certified that the results incorporated in this report are findings of the experiments conducted by the candidate herself and have not been presented elsewhere for the award of any degree.

Head 

Prof. Jogen Chandra Kalita

Professor

Department of Zoology


Supervisor 26/06/23

Dr. Banasri Mech,


Assistant Professor

Department of Zoology

CERTIFICATE

This is to certify that Ms. Anwasha Gogoi, a student of M.Sc. Zoology 4th-semester, specialization in **Animal Ecology and Wildlife Biology**, in the Department of Zoology, Gauhati University bearing Roll No: PS-211-801-0006, Regd. No. 21043231, Year: 2023 has completed the MS Dissertation entitled "**Studies on nesting birds and their nests in Gauhati University campus, Guwahati, Assam**" under my direct guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student for the degree of Master of Science in the subject of M. Sc. in Zoology, Gauhati University, 2023.

Prof. Prasanta Kumar Saikia
Prof.
Department of Zoology
Gauhati University


DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
Gopinath Bordoloi Nagar
Guwahati - 781014
Assam: India

Hrishikesh Choudhury
Assistant Professor

Phone: 0361-2570294 (O)
+9198647-48407(M)
Email: choudhuryhr165@gmail.com

CERTIFICATE

This is to certify that Miss Arpita Sarkar has submitted the dissertation entitled "A study on the scales of selected freshwater barbs of the genus *Pethia Pethiyagoda et al. (2012)* from northeast India" in partial fulfilment for the award of the degree of Masters of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: 28/06/2023

Place: Gauhati University

Hrishikesh Choudhury
(HRISHIKESH CHOUDHURY)
Assistant Professor
Department of Zoology
Gauhati University
Guwahati 781014

CERTIFICATE

This is to certify that Avansika Haflongbar has carried out this project work entitled studies "To Study Distribution and Seasonal abundance of *Aedes albopictus* inside Gauhati University campus and its Control using selected essential oils" under my guidance and supervision. The result incorporated in this project report is original and synthesized of her own investigation. The said project is submitted to the Department of Zoology, Gauhati University, Guwahati in partial fulfillment of the award of the degree of Masters of Science in Zoology (Entomology).

PROF.J.C.KALITA

Head of Department,
Dept. of Zoology
Gauhati University
GUWAHATI, ASSAM

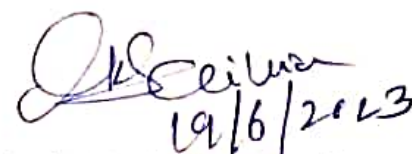
Dated:

DR. BULBULI KHANIKOR

Assistant Professor
Department of zoology
Gauhati University

CERTIFICATE

This is to certify that **Mr./Ms. Bitu Raj Deka** , a student of M.Sc. Zoology 4th-semester, specialization in **Animal Ecology and Wildlife Biology**, in the Department of Zoology, Gauhati University bearing Roll No: PS-211-801-0010 Regd. No: 18033124, Registration year 2021-2022, has completed the MS Dissertation entitled **“STUDIES ON THE DIVERSITY AND DISTRIBUTION OF GRASSHOPPERS PRESENT IN GAUHATI UNIVERSITY CAMPUS, JALUKBARI, ASSAM.”** under my/our direct guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student for the degree of Master of Science in the subject of M.Sc. in Zoology, Gauhati University, 2023.



19/6/2023

Dr Malabika Kakati Saikia
Assistant Professor in Zoology,
Animal Ecology and wildlife Biology
Department of Zoology
Gauhati University



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
GUWAHATI – 781 014, ASSAM, INDIA

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Centre for : Aquaculture & Aquatic Resource Management,
Biodiversity & Bioinformatics

Phone : + 91-0361-2700294 (0) ; Fax : 91-0361-2700311

Prof. Jogen Ch. Kalita

Date : 26/06/23.

Head of the Dept. of Zoology, Gauhati University

Animal Physiology & Biochemistry Special Paper,

E-mail: jogenck@yahoo.co.in ; Phone: 9435083544

CERTIFICATE

This is to confirm that the thesis entitled "**EFFECT OF *Piper chaba* METHANOLIC STEM EXTRACT ON THE REPRODUCTIVE SYSTEM OF MALE SWISS ALBINO MICE**" submitted by Miss Christina Koch, bearing Roll No: PS-211-801-0011 with Registration No: 18057177 is a record of original research work carried out by her under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University.

The research outputs contained in the thesis is the outcome of her sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.

Guwahati
Place

Signature

J. Kalita
26/06/23

PROF. JOGEN CH. KALITA
Department of Zoology
Gauhati University
Guwahati-781014, Assam.

CERTIFICATE

This is to certify that DADERE MWSHAHARY has carried out this project work entitled studies "TO STUDY THE DISTRIBUTION AND SEASONAL ABUNDANCE OF *Aedes albopictus* INSIDE GAUHATI UNIVERSITY CAMPUS AND ITS CONTROL USING SELECTED ESSENTIAL OILS" under my guidance and supervision. The result incorporated in this project report is original and synthesized of her own investigation. The said project is submitted to the Department of Zoology, Gauhati University, Guwahati in partial fulfilment of the award of the degree of Masters of Science in Zoology (Entomology).

PROF J. C. KALITA

Head Dept. of Zoology

Gauhati University

GUWAHATI, ASSAM

Dr. BULBULI KHANIKOR

Assistant Professor

Dept. of Zoology

Gauhati University

CERTIFICATE

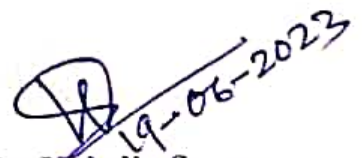
This is to certify that **Mr. Dhrubajyoti Sarma** a student of M.Sc. 4th semester of Zoology, Department of Zoology, Gauhati University bearing **Roll No: PS-211-801-0013** and **Reg. No. 18073970** has completed the MSc Dissertation Work entitled “**Study on the species composition of common household ants in South Kamrup area of Kamrup (Rural) District of Assam and the control of one common ant by using one selected plant based essential oil**” under my direct guidance and supervision. The present dissertation work is an original work conducted by the student for the degree of Master of Science in the subject of M. Sc. in Zoology, Department of Zoology, Gauhati University, 2023

A handwritten signature in a circle and the date 28/06/2023.

Prof./Dr.
Department of Zoology
Gauhati University

CERTIFICATE

This is to certify that Ms. **DIMPY THAKURIA**, a student of M.Sc. Zoology 4th-semester, specialization in **Animal Ecology and Wildlife Biology**, in the Department of Zoology, Gauhati University bearing Roll No: PS-211-801-0014 Regd. No. 18039151 Year 2021-2022 has completed the MS Dissertation entitled “**ESTIMATION OF TOTAL BIOMASS CARBON STOCK IN THE STANDING TREES OF SOUTH-EASTERN PART OF BOTANICAL GARDEN OF GAUHATI UNIVERSITY CAMPUS**” under my/our direct guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student for the degree of Master of Science in the subject of M.Sc. in Zoology, Gauhati University, 2023.



Dr. Kuladip Sarma
Assistant Professor
Department of Zoology
Gauhati University



**DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
Gopinath Bordoloi Nagar
Guwahati – 781014
Assam: India**

Prof. Dandadhar Sarma
Dept. of Zoology, Gauhati university

Phone: +9194353-14768
Email: sarma.dandadhar@gmail.com

CERTIFICATE

This is to certify that Mr. Dipshagar Kalita submits the dissertation entitled “**A study on effect of selected waste nutrients on the growth performance of Black soldier fly (*Hermetia illucens*).**” in partial fulfillment for the award of the degree of Master of Science in Zoology. This dissertation is truly the result of his own investigation and has been completed under my supervision and guidance. Neither the dissertation as a whole nor any part of it was submitted by any other University for any research degree.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: /06/2023

(Prof. Dandadhar Sarma)

Place: Gauhati University



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
Gopinath Bordoloi Nagar
Guwahati - 781014
Assam: India

Hrishikesh Choudhury
Assistant Professor

Phone: 0361-2570294 (O)
+9198647-48407(M)
Email: choudhuryhr165@gmail.com

CERTIFICATE

This is to certify that Miss Dwishree Mala Basumatary has submitted the dissertation entitled "A study on the karyotype of *Channa gachua* (Hamilton, 1822)" in partial fulfilment for the award of the degree of Masters of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: 28/06/2023

Place: Gauhati University

Hrishikesh Choudhury
(HRISHIKESH CHOUDHURY)
Assistant Professor
Department of Zoology
Gauhati University
Guwahati-14

CERTIFICATE

This is to certify that **Ms Himashri Bora**, a student of M.Sc. Zoology 4th-semester, specialization in Animal **Ecology and Wildlife Biology**, in the Department of Zoology, Gauhati University bearing **Roll No: PS-211-801-0018, Regd. No. 18003529, Year 2021-22** has **completed the MSc Dissertation** entitled “**Study on diversity and distribution of Cricket species (Families: Gryllidae, Trigonidiidae, Gryllotalpidae) present in Gauhati University campus.**” under my direct guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student **for the degree of Master of Science** in the subject of M. Sc. in Zoology, Specialization in Animal Ecology and Wildlife Biology, Gauhati University during the year, 2023.

Prof. Prasanta Kumar Saikia
Professor
Department of Zoology,
Animal Ecology and Wildlife Biology
Gauhati University



DEPARTMENT OF ZOOLOGY

GAUHATI UNIVERSITY Phone: 91-0361-2700294 (O)

Gopinath Bardoloi Nagar Fax: 91-0361-2700294

Guwahati -781 014-03: Assam, India

UGC-SAP (DRS Phase -II), DST (Govt. of India) FIST Sponsored Department,
Center for: Biodiversity & Bioinformatics, Aquaculture & Aquatic Resource
Management

Dr. Manas Das

Assistant Professor

CERTIFICATE

This is to certify that the work contained in the M.Sc. dissertation entitled 'NUTRITIONAL PROFILING OF SELECTED EDIBLE INSECTS TRADITIONALLY CONSUMED BY DIFFERENT ETHNIC COMMUNITIES OF ASSAM', submitted by Ipsah Akhtar, M.Sc. 4th semester, specialization in Animal Physiology and Biochemistry, bearing Regd. No. 18033148 and Roll no. PS-211-801-0020 of 2021-23, in partial fulfilment of the requirements for the award of Master of Science in Zoology from Department of Zoology, Gauhati University during the academic year 2023 is a record of bonafide research work carried out by her under our direct supervision and guidance.

The dissertation has reached the standards, fulfilling the requirements of the rules and regulations relating to the nature of the degree. The contents embodied have not been submitted for the award of any other degree or diploma in this or any other university.



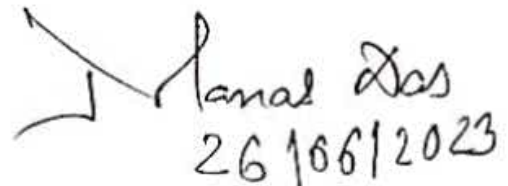
(Prof. Jogen Ch. Kalita)

Professor and Head

Department of Zoology

Gauhati University

Assam - 781014



(Dr. Manas Das)

Assistant Professor

Department of Zoology

Gauhati University

Assam - 781014

CERTIFICATE

This is to certify that **Jeemoni Choudhury** a student of M.Sc. 4th semester of Zoology, Department of Zoology, Gauhati University bearing **Roll No: PS-211-801-0021** and **Reg. No. 17015485** has completed the M.Sc Dissertation work entitled “**Studies on the distribution of ant species in selected plants in the campus of Gauhati University, Assam, India**” under my direct guidance and supervision. The present dissertation work is an original work conducted by the student for the degree of Master of Science in the subject of M. Sc. In Zoology, Department of Zoology, Gauhati University, 2023.

A handwritten signature in black ink, appearing to be 'P. Choudhury', is written over the date '28/06/2023'. The signature is written in a cursive style.

Prof/Dr.

Department of Zoology

Gauhati University

CERTIFICATE


This is to certify that Miss Jiml Chamuah bearing University Roll No: PS-211-801-0022 Department of Zoology, Gauhati University was allotted the project entitled "*Study on the Effect of Green Tea Extract on Parabenzoquinone induced Toxicity in Mice*" for the partial fulfilment of the award of M. Sc degree in Zoology (Specialization: Cell & Molecular Biology). It is hereby certified that the results incorporated in this report are finding of the experiments conducted by the candidate himself/herself and has not been presented elsewhere for the award of any degree.

Head
Prof. Jogen Chandra Kalita
Professor
Department of Zoology

Supervisor
Dr. Manuj Kumar Bharali,
Associate Professor
Department of Zoology

CERTIFICATE

This is to certify that **Mr. Jitakshor Nath**, a student of M.Sc. Zoology 4th-semester, specialization in **Animal Ecology and Wildlife Biology**, in the Department of Zoology, Gauhati University bearing Roll No: PS- 211-801-0023; Regd. No. 18042195; Year 2023 has completed the MS Dissertation entitled “**Vocalization and other behavioural response of free ranging Rhesus Macaque (*Maccaca mulatta*) in Gauhati University campus, Guwahati, Assam**” under my/our direct guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student for the degree of Master of Science in the subject of M. Sc. in Zoology, Gauhati University, 2023.



19-06-2023

Dr. Kuladip Sarma
Assistant Prof.
Department of Zoology
Gauhati University

CERTIFICATE

This is to certify that Ms. Joyita Bhattacharjee, a student of M.Sc. Zoology 4th-semester, specialization in Animal Ecology and Wildlife Biology, in the Department of Zoology, Gauhati University bearing Roll No: PS-211-801-0024 Regd. No. 21043236, 2021 has completed the MS Dissertation entitled "Carbon stock Assessment using Biomass estimation of standing crop (trees) methods in the North-eastern part of Botanical Garden in Gauhati University campus" under my direct guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student for the degree of Master of Science in the subject of M. Sc. in Zoology, Gauhati University, 2023.


Dr. Malabika Kakati Saikia

Assistant Professor in Zoology Department
Animal ecology and wildlife biology
Department of Zoology
Gauhati University

CERTIFICATE

This is certify that Jutika Devi has carried out this project work entitled “Fumigant toxicity of selected plant based essential oils and compounds against adult *Culex quinquefasciatus*” under my guidance and supervision. The result incorporated in this project report is original and synthesized of her own investigation. The said project is submitted to the department of Zoology, Gauhati University, Guwahati in partial fulfilment of the award of the degree of Masters of Science in Zoology (Entomology).

DR. BULBULI KHANIKOR

Assistant professor, Dept. Of zoology

Gauhati University

CERTIFICATE

This is certify that Kalpana Lafthaisa has carried out this project work entitled “**Study on larvicidal of certain essential oils and their effect on gut cells of *Culex quinquefasciatus*”** under my guidance and supervision. The result incorporated in this project report is original and synthesized of her own investigation. The said project is submitted to the department of zoology, Gauhati University , Guwahati in partial fulfilment of the award of the degree of masters of Science in zoology (Entomology).

DR. BULBULI KHANIKOR

Assistant professor

Dept. of zoology

Gauhati University



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
GUWAHATI: 781014, ASSAM

CERTIFICATE

This is to certify that Ms. KAMALINA CHOUDHURY bearing University Roll No: PS-211-801-0027 Department of Zoology, Gauhati University was allotted the project entitled "Caenorhabditis elegans as a model to study effect of food colour Allura Red AC on locomotion and surface topography by scanning electron microscope" for the partial fulfilment of the award of M. Sc degree in Zoology (**Specialization: Cell & Molecular Biology**). It is hereby certified that the results incorporated in this report are finding of the experiments conducted by the candidate himself/herself and has not been presented elsewhere for the award of any degree.

Head
Prof. Jogen Chandra Kalita
Professor
Department of Zoology

Supervisor
Dr. Banasri Mech
Assistant Professor
Department of Zoology

Dr. Manuj Kr. Bharali, Associate Professor
Cell and Molecular Biology Lab
Dept. Of Zoology, Gauhati University
Guwahati: 781014, Assam
Email: manujkrbharali@gauhati.ac.in, M: +919436223708

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Phone: 0361-2570294 (O)

+9198647-48407(M)

Email: choudhuryhr165@gmail.com

Hrishikesh Choudhury
Assistant Professor

CERTIFICATE

This is to certify that Miss Krishangi Goswami has submitted the dissertation entitled "Study on certain aspects of biology of the Bengal danio, *Devario devario* (Hamilton, 1822) from Bajali sub-division of Barpeta district, Assam" in partial fulfilment for the award of the degree of Masters of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Hrishikesh Choudhury
(HRISHIKESH CHOUDHURY)
Assistant Professor
Department of Zoology
Gauhati University
Guwahati-14

Date: 28/06/2023

Place: Gauhati University

DEPARTMENT OF ZOOLOGY

GAUHATI UNIVERSITY

Gopinath Bordoloi Nagar

Guwahati – 781014

Assam: India

Prof. Dandadhar Sarma

Dept. of Zoology, Gauhati university

Email: sarma.dandadhar@gmail.com

Phone: +9194353-14768

CERTIFICATE

This is to certify that Miss Lina Ray submits the dissertation entitled "**A study on natural breeding & larval rearing of indigenous ornamental fish, *Trichogaster chuna*(HAMILTON,1822)**" in partial fulfillment for the award of the degree of Master of Science in Zoology. This dissertation is truly the result of his own investigation and has been completed under my supervision and guidance. Neither the dissertation as a whole nor any part of it was submitted by any other University for any research degree.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: 28/06/2023

(Prof. Dandadhar Sarma)

Place: Gauhati University

CERTIFICATE

This is to certify that the dissertation entitled “**Larvicidal activity of *Aegle marmelos* and *Curcuma longa* essential oil and the effect of *Curcuma longa* on the histological changes on the midgut of *Culex quinquefasciatus*” submitted by Maria Basumatary bearing Roll no. PS – 211 – 801 – 0034 in partial fulfilment for the award of the degree of Masters of Science in Zoology. This dissertation is a bonafide work carried out by her under my supervision and guidance.**

Dr. Bulbuli Khanikor
Assistant Professor
Dept. of Zoology
Gauhati University, Assam



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY

GUWAHATI-781 014, Assam, INDIA.

DST (Govt. of India)-FIST and UGC's-SAP Sponsored Department Centre for: Aquaculture & Aquatic Resource Management, Biodiversity & Bioinformatics. Phone:

+91-0361-2700294 (0); Fax: 91-0361-2700311

Prof. Jogen Ch. Kalita
Head of the Department,
Animal Physiology & Biochemistry Special Paper,
Department of Zoology (Gau.)
Email: jogenck@yahoo.co.in Ph.No.: 9435083544

June, 2023

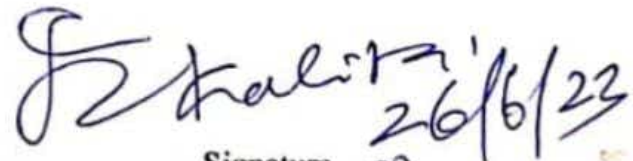
CERTIFICATE

This is to confirm that the thesis entitled "STUDY OF EFFECTS OF A GLYPHOSTATE-BASED HERBICIDE ON HEPATIC, RENAL, AND REPRODUCTIVE PHYSIOLOGY IN SWISS ALBINO MICE" submitted by Miss Mayurakshi Sarma, bearing Roll No: PS-211-801-0036 with Registration No: 18076635 is a record of original research work carried out by her under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University.

The research outputs contained in the thesis is the outcome of her sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.

Date: 26-6-23

Place: Gauhati University, Assam


26/6/23

Signature
Professor & Head
Department of Zoology
Gauhati University
Guwahati-781014, Assam.



DEPARTMENT OF ZOOLOGY

GAUHATI UNIVERSITY Phone: 91-0361-2700294 (O)

Gopinath Bardoloi Nagar Fax: 91-0361-2700294

Guwahati -781 014-03: Assam, India

UGC-SAP (DRS Phase –II), DST (Govt. of India) FIST Sponsored Department,
Center for: Biodiversity & Bioinformatics, Aquaculture & Aquatic Resource
Management

Dr. Manas Das

Assistant Professor

This is to confirm that the thesis entitled **IN-VITRO STUDY ON THE BLOOD COAGULATION ACTIVITY OF FEW PLANT EXTRACTS**

Submitted by **Monojit kumar roy** , bearing Roll No: **PS-211-801-0037** with Registration No: **18021986** is a record of original research work carried out by him under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University.

The research outputs contained in the thesis is the outcome of his sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.

Place Guwahati, 26/06/2023

signature *Manas Das*



**DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
Gopinath Bordoloi Nagar
Guwahati – 781014
Assam: India**

Prof. Dandadhar Sarma
Dept. of Zoology, Gauhati university

Phone: +9194353-14768
Email: sarma.dadadhar@gmail.com

CERTIFICATE

This is to certify that Mr. Mosaddik Ahmed submits the dissertation entitled “**Culture & Breeding Of *Eisenia fetida*(Savigny, 1826) And *Eudrilus eugeniae* (Kinberg, 1866) In Combination With Different Low Cost Ingredients**” in partial fulfillment for the award of the degree of Master of Science in Zoology. This dissertation is truly the result of his own investigation and has been completed under my supervision and guidance. Neither the dissertation as a whole nor any part of it was submitted by any other University for any research degree.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: /06/2023

(Prof. Dandadhar Sarma)

Place: Gauhati University



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY

GUWAHATI-781 014, Assam, INDIA.

DST (Govt. of India)-FIST and UGC's-SAP Sponsored Department
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Prof. J. C. KALITA, M. Sc (Gau), Ph. D (King's College London)
Head, Department of Zoology
Animal Physiology & Biochemistry Special Paper,
E-mail: jogenck@yahoo.co.in; Phone: 9435083544(M)

Date:


CERTIFICATE

This is to confirm that the thesis entitled "**COMPARATIVE PHYTOCHEMICAL PROPERTIES & ANTIOXIDANT ACTIVITIES OF THREE SPECIES OF THE GENUS *CURCUMA***" Submitted by Miss Mrigakhi Das, bearing RdNo: PS-211-801-0040 with Registration No: 18002249 is a record of original research work carried out by her under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University.

The research outputs contained in the thesis is the outcome of her sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.

DATE:

PLACE:


P. Jogenck
Professor & Head
Department of Zoology
Gauhati University
Guwahati-781014, Assam
26/6/23



DEPARTMENT OF ZOOLOGY
GAUHATI UNIVERSITY
GUWAHATI: 781014, ASSAM

C E R T I F I C A T E

This is to certify that Mr **NABAJIT BARMAN** bearing University Roll No: **PS-211-801-0041** Department of Zoology, Gauhati University was allotted the project entitled “**Studies on the Comparative Cytotoxic Effect of Irinotecan and Green Tea Catechins on Root Tip Cells of *Allium cepa L***” for the partial fulfilment of the award of M. Sc degree in Zoology (**Specialization: Cell & Molecular Biology**). It is hereby certified that the results incorporated in this report are finding of the experiments conducted by the candidate himself and has not been presented elsewhere for the award of any degree.

Head

Prof. Jogen Chandra Kalita

Professor

Department of Zoology

Supervisor

Dr. Manuj Kumar Bharali

Associate Professor

Department of Zoology

Dr. Manuj Kr. Bharali, Associate Professor
Cell and Molecular Biology Lab
Dept. Of Zoology, Gauhati University
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Email: manujkrbharali@gauhati.ac.in, M: +919436223708



Department of Zoology
Gauhati University
Guwahati: 781014, Assam

CERTIFICATE

This is to certify that Ms. Nabila Akhtara bearing University Roll No: PS-211-801-0043 Department of Zoology, Gauhati University was allotted the project entitled "*Study on the Effect of Green Tea Extract on Para-benzoquinone induced hepatotoxicity in mice*" for the partial fulfilment of the award of M. Sc degree in Zoology (Specialization: Cell & Molecular Biology). It is hereby certified that the results incorporated in this report are finding of the experiments conducted by the candidate himself/herself and has not been presented elsewhere for the award of any degree.

Head
Prof. Jogen Chandra Kalita
Professor
Department of Zoology

Supervisor
Dr. Manuj Kumar Bharali,
Associate Professor
Department of Zoology
Dr. Manuj Kr. Bharali
Associate Professor, Dept. of Zoology
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Hrishikesh Choudhury
Assistant Professor

CERTIFICATE

This is to certify that Miss Nibedita Talukdar has submitted the dissertation entitled "Descriptive study on the osteology of the spotted sail barb *Pethia phutunia* (Hamilton, 1822)" in partial fulfillment for the award of the degree of Masters of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Hrishikesh Choudhury
(HRISHIKESH CHOUDHURY)
Assistant Professor
Department of Zoology
Gauhati University
Guwahati-14

Date: 27/06/2023

Place: Gauhati University



DEPARTMENT OF ZOOLOGY

GAUHATI UNIVERSITY

GUWAHATI: 781014, Assam

CERTIFICATE

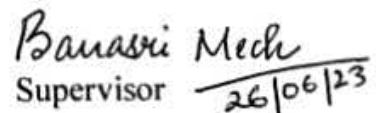
This is to certify that Miss **NIKITA ISHARWALIA** bearing University Roll No: **PS-211-801-0046** Department of Zoology, Gauhati University was allotted the project entitled "**Evaluation of the chronic effects of the artificial food dye sunset yellow on locomotion behavior of model organism *Caenorhabditis elegans***" for the partial fulfillment of the award of M.Sc degree in Zoology (**Specialization: Cell & Molecular Biology**). It is hereby certified that the results incorporated in this report are findings of the experiments conducted by the candidate herself and have not been presented elsewhere for the award of any degree.

Head 

Prof. Jogen Chandra Kalita

Professor

Department of Zoology


Supervisor 26/06/23

Dr. Banasri Mech,

Assistant Professor

Department of Zoology

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**Prof. Dandadhar Sarma
Dept. of Zoology, Gauhati university**

**Phone: +9194353-14768
Email: sarma.dandadhar@gmail.com**

CERTIFICATE

This is to certify that Mr. Nurul Haque submits the dissertation entitled “**CAPTIVE BREEDING AND LARVAL REARING OF *Mystus tengara***” in partial fulfillment for the award of the degree of Master of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance. Neither the dissertation as a whole nor any part of it was submitted by any other University for any research degree.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: 21/06/2023

(Prof. Dandadhar Sarma)

Place: Gauhati University

CERTIFICATE

This is to certify that Miss Pahi Mahanta submits the dissertation entitled " An In vitro Study on the Antibacterial Activity of Ginger (*Zingiber officinale* Roscoe) Essential Oil Against *Aeromonus hydrophila* " in partial fulfillment for award of degree of Masters of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance. Neither the dissertation as a whole nor any submitted by any other University for any research degree.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Prof Dandadhar Sarma

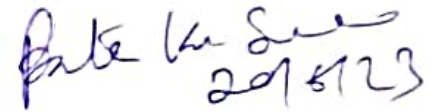
Department of Zoology

Gauhati University

Assam,781014

CERTIFICATE

This is to certify that **Ms. Prateeksha Kashyap**, a student of M.Sc. Zoology 4th Semester, Specialization in **Animal Ecology and Wildlife Biology**, in the Department of zoology, Gauhati University bearing Roll No.: **PS-211-801-0051**, Regd. No.: **18059025**, 2023, has completed the M.Sc. Dissertation entitled **“Studies on the Interactions Between Animals and Trees in the Gauhati University Campus, Guwahati, Assam”** under my/ our guidance and supervision. It is also certified that the present dissertation work is an original one conducted by the student for the degree of Master of Science in the subject of M.Sc. in Zoology, Gauhati University, 2023.



Prof. Prasanta Kumar Saikia

Former Head

Department of Zoology,

Gauhati University



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Center for: Biodiversity & Bioinformatics, Aquaculture & Aquatic Resource Management

Dr. Manas Das

Assistant Professor

CERTIFICATE

This is to certify that the work contained in the M.Sc. dissertation entitled 'EXPLORING THE ANTI-INFLAMMATORY POTENTIAL OF *Myrica esculenta* FRUIT EXTRACT IN LPS-INDUCED SYSTEMIC INFLAMMATORY MURINE MODEL', submitted by Ratul Chakraborty, M.Sc. 4th semester, specialization in Animal Physiology and Biochemistry, bearing Regd. No. 18080883 and Roll no. PS-211-801-0054 of 2021-23, in partial fulfilment of the requirements for the award of Master of Science in Zoology from Department of Zoology, Gauhati University during the academic year 2023 is a record of bonafide research work carried out by her under our direct supervision and guidance.

The dissertation has reached the standards, fulfilling the requirements of the rules and regulations relating to the nature of the degree. The contents embodied have not been submitted for the award of any other degree or diploma in this or any other university.

(Prof. Jogen Ch. Kalita)

Professor and Head

Department of Zoology

Gauhati University

Assam – 781014

(Dr. Manas Das)

Assistant Professor

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Dr.MANAS DAS, M.Sc (Gau), Ph.D (NEHU)
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Animal Physiology & Biochemistry Special Paper,
E-mail:manasdasne@gmail.com; Phone: 9101132397(M)

Date:

CERTIFICATE

This is to confirm that the thesis entitled “AMELIORATIVE EFFECT OF POLYHERBAL FORMULATION (PHF) ON LPS INDUCED ACUTE LUNG INJURY (ALI) IN *MUS MUSCULUS*” submitted by Mr Sachin Kumar Sah, bearing Roll No: PS-211-801-0056 with Registration No: 18051079 is a record of original research work carried out by him under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University. The research outputs contained in the thesis is the outcome of his sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.

Place:

Signature:

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Assam: India**

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CERTIFICATE

This is to certify that Miss Shreyasi Deka submits the dissertation entitled **a study on natural carotenoid source for the colouration of golden dwarf barb, *pethia gelius* (hamilton 1822)** in partial fulfillment for the award of the degree of Master of Science in Zoology. This dissertation is truly the result of her own investigation and has been completed under my supervision and guidance. Neither the dissertation as a whole nor any part of it was submitted by any other University for any research degree.

I further declare that the result of the dissertation has not been submitted to any other University or institution for the award of any degree or diploma course.

Date: /06/2023

Place: Gauhati University

(Prof. Dandadhar Sarma)



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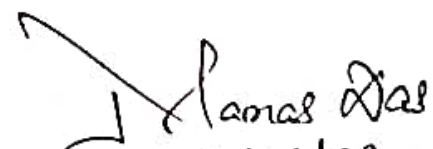
CERTIFICATE

This is to confirm that the thesis entitled "EXPLORING THE CARDIOPROTECTIVE ROLE OF *Myrica esculenta* FRUIT EXTRACT IN ISOPROTEINOL INDUCED MYOCARDIAL INFARCTED MICE MODEL AND ASSOCIATION OF AQUAPORINS" Submitted by Miss Unashri Kalita, bearing Roll No: PS-211-801-0061 with Registration No: 18076708 is a record of original research work carried out by her under my guidance and direct supervision in partial fulfilment for the degree of Master of Science in Zoology, Gauhati University.

The research outputs contained in the thesis is the outcome of her sole continuous efforts that has neither been published elsewhere nor formed the basis for the award of any other degree or diploma as such by any other University or Institution.


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(Prof Jogen Ch Kalita)
Professor and Head
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26/06/23
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