

CURRENT BIOLOGICAL RESEARCH



SARS - CoV-2 Main Protease

Editors :
Jayanta Sonowal
Dr. Urmika Phangchopi
Sajidur Rahman

CURRENT BIOLOGICAL RESEARCH

Editors

Jayanta Sonowal

Dr. Urmika Phangchopi

Sajidur Rahman

Department of Botany and Zoology
Namrup College

CURRENT BIOLOGICAL RESEARCH: A collection of selected research articles edited by Jayanta Sonowal, Dr. Urmika Phangchopi and Sajidur Rahman and published by Jayanta Sonowal on behalf of Department of Botany and Zoology of Namrup College, Dibrugarh, Assam, India

Advisors:

Mr. Bimal Chandra Gogoi
Ms. Dorodi Saikia Bora
Mr. H. H. Singh
Mr. Rupak Kr. Borgohain

Editors:

Jayanta Sonowal
Dr. Urmika Phangchopi
Sajidur Rahman

Published by:

Jayanta Sonowal
(On behalf of Botany and Zoology Department)
Namrup College

Publisher's Address:

Namrup College
PO-Parbatpur
PIN-786623
Dist. Dibrugarh, Assam, India

Printed at: IQAC, Namrup College

Year of Publication: October, 2021

Price: Rs. 499/-

Total Pages: 126

ISBN: 978-93-5566-144-9

Current Biological Research

Preface

Biological Science, covering all the branches of natural sciences (mainly plant and animals sciences), is one of the most important disciplines among the various disciplines of science. Biological science encompasses concept from anatomy to biophysics and from microorganisms to giant plant and animals as well. A lot of works have already been done by various workers globally to explore the unknown facts of living world, still there are many unknown facts prevailing in the biosphere and when these facts will be unveiled is still a question for us and remains as question until the scientific community do its part in every level in biological field for present and future mankind. It is often said that lots of biological species still unknown to human beings and will be disappeared before human race come to know about them. But due to continuous efforts from the end of researchers, many information and ideas are coming out which enhances the feasibility of biological research that leads and help in the understanding of vital biological function.

It is obvious that research in biological science reaches in highest peak in last two years due to arrival of new strains of infectious corona virus. The scientist from all over the world invested their time and talent to solve the infectious and rapid spread of corona virus. And finally, within two years of consistent effort researchers have able to find out a solution to arrest the growth of corona virus in human body. Development of vaccine against corona virus within a span of two years is one of the greatest successes of this time. It is a great success of scientist working in the field of biological sciences. Therefore, research in every level irrespective of research or academic institutions play immense roles to tackle up the situations occurring abruptly in day to day life. Any research carried out by any Academic institution has an equal importance like the research carried out by an institute purely dedicated to research activity. By keeping this in our mind, we have planned to publish a book containing recent research information from different fields of biological sciences to encourage and creating the awareness among the new researchers. We believe that research makes human society wealthy and healthy in terms of knowledge and economy. The basic foundation of research can be formed through academic institutions by incorporating all the stockholders of its capacities. Academic research helps to develop a healthy research

Current Biological Research

atmosphere among the students and teaching faculties. With this aims, we decided to publish a research book by inviting research papers/articles from the researchers of various field of biological sciences to be bound in the name entitled “CURRENT BIOLOGICAL RESEARCH” in the month of December 2020 and planned to publish in June 2021. Unfortunately, due to unexpected re-arrival of COVID-19 pandemic in the beginning of 2021, we could not finish the works within the stipulated time. Therefore, we are extremely sorry to our contributors without whom we could not reach at this end. In spite of this, positive cooperation from contributors and all associated fellow colleagues of this publication, we are finally reaching this end point to hand over the book to our reader in the month of October 2021. This book has 10 chapters with different topics contributed by Ph. D. Research Scholars, teaching faculties from Colleges and Universities. We hope that this book will disseminate new knowledge, information, ideas and methodologies to readers and new researchers. We are highly grateful to all the contributors for their valuable contributions to prepare the book during this critical time. We offer our sincere gratitude to all the teaching and non-teaching members of Namrup College for their help in various ways to publish this book. We have given enough importance and trying our best to make this book errorless, but unknowingly there may be mistake to some extent. Therefore, we humbly request to our readers to indicate the same and we will try to wipe out such mistakes in future.

Editorial Team

Current Biological Research

Contributors

Aggarwal Rohit, Cosmic Cordycep Farms, Badarpur Said Tehsil Tigaon, Faridabad, Haryana-121101, India

Barthakur Trinayan, Department of Zoology, Cell & Biochemical Technology Laboratory, Cotton University, Guwahati-781001, Assam, India

Baruah Debojit, PDUAM, Behali, Biswanath, Assam, India

Baruwa Bandita, Department of Zoology, Cell & Biochemical Technology Laboratory, Cotton University, Guwahati-781001, Assam, India

Bora Dipsikha, Department of Life Sciences, Dibrugarh University, Dibrugarh-786004, Assam, India

Borgohain Bristy, Research Scholar, Department of Life Sciences, Dibrugarh University, Dibrugarh- 786004, Assam, India

Borthakur Sangita, Department of Life Sciences, Dibrugarh University, Dibrugarh-786004, Assam, India

Das Jumi, Department of Zoology, Cell & Biochemical Technology Laboratory, Cotton University, Guwahati-781001, Assam, India

Das Sabebaro Namo, Department of Botany, B.P.Chaliha College, Nagarbera, Kamrup-781127, Assam, India

Dutta Aashis, Department of Zoology, Behali Degree College, Biswanath Chariali, Assam, India

Dutta Diksha, Department of Zoology, Cell & Biochemical Technology Laboratory, Cotton University, Guwahati-781001, Assam, India

Hansepi Prila , Department of Life Science and Bioinformatics, Assam University - Diphu Campus, Diphu -782 462, Karbi Anglong, Assam, India

Neog Bijjoy, Professor, Department of Life Sciences, Dibrugarh University, Dibrugarh-786004, Assam, India

Current Biological Research

Phangchopi Urmika, Department of Botany, Namrup College, Parbatpur-786623,
Dibrugarh, Assam, India

Rahman Sajidur, Department of Zoology, Namrup College, Parbatpur-786623,
Dibrugarh, Assam, India

Saikia Chandopal, Department of Life Sciences, Dibrugarh University, Dibrugarh-
786004, Assam, India

Saikia Pranit, Assistant Professor, Centre for Biotechnology and Bioinformatics,
Dibrugarh University, 786004, Dibrugarh, Assam, India

Singh Moirangthem Kameshwar, Department of Life Sciences, Dibrugarh University-
786004, Dibrugarh, Assam, India

Singh Namram Sushindrajit, Department of Zoology, Cell & Biochemical Technology
Laboratory, Cotton University, Guwahati-781001, Assam, India

Sonowal Jayanta, Department of Botany, Namrup College, Dibrugarh-786623, Assam,
India

Sonowal Susmita, Department of Life Sciences, Dibrugarh University-786004,
Dibrugarh, Assam, India

Tamuli Ajit K., Department of Life Science & Bioinformatics, Assam University
Diphu Campus, Diphu -782462, Karbi Anglong, Assam, India

Teron Robindra, North Eastern Institute of Folk Medicine, Pasighat- 791102,
Arunachal Pradesh, India

Verma Akalesh Kumar, Department of Zoology, Cell & Biochemical Technology
Laboratory, Cotton University, Guwahati-781001, Assam, India

Current Biological Research

Contents

1. *In vitro* inhibitory effect of fungicides against on mycelial growth of *Fusarium oxysporum* causing brinjal wilt. **by** Sabebaro Namu Das/ **1**
2. A review on bioactive metabolites and pharmacological characteristics of *Cordyceps* spp. **by** Jumi Das, Namram Sushindrajit Singh, Rohit Aggarwal, Diksha Dutta, Bandita Baruwa, Trinayan Barthakur and Akalesh Kumar Verma/ **8**
3. Assessment of macrophytes diversity and conservation status of Bordoibam Bilmukh, an Important Bird Area (IBA) site of Assam, Northeast India **by** Jayanta Sonowal and Debojit Baruah/ **29**
4. Assessment of genetic diversity among four epiphytic orchids ‘*Cymbidium* species’ from Sikkim using RAPD markers **by** Bristy Borgohain, Bijoy Neog and Pranit Saikia/ **45**
5. Wild mushrooms and cases of mycetism among the people of Karbi Hills, Assam of Northeast India **by** Prila Hansepi and Robindra Teron/ **54**
6. A study on the foliar epicuticular wax composition of *Camellia sinensis* (L.) O. Kuntze (Ericales: Theaceae) and certain alternate host plants of *Helopeltis theivora* Waterhouse (Hemiptera: Miridae) **by** Sangita Borthakur and Dipsikha Bora/ **71**
7. Length-weight relationship and condition factor of *Amblypharyngodon mola* (Hamilton, 1822) from Dibrugarh, Assam **by** Susmita Sonowal, Chandopal Saikia and Moirangthem Kameshwor Singh/ **83**
8. Length-Weight Relationship and the condition factor of *Trichogaster lalius* (Hamilton, 1822), a freshwater fish from Golaghat district of Assam **by** Sajidur Rahman and Aashis Dutta/ **90**
9. Traditional Knowledge of wild edible mushrooms by ethnic groups in Marat Longri Wildlife Sanctuary, Assam **by** Urmika Phanchopi, Ajit K. Tamuli and Robindra Teron/ **100**
10. Evaluation of cultural significance of wild edible plants (WEPs) in Marat Longri Wildlife Sanctuary, Assam **by** Urmika Phanchopi and Robindra Teron/ **111**



Jayanta Sonowal, is currently working as Assistant Professor, Department of Botany, Namrup College, Dibrugarh, Assam, India. Apart from his professional carrier, he is interested in Wetland Ecology, Biodiversity, Conservation and Assessment of Environmental issues. He is a "Life member of Indian Science Congress Association". So far, he has edited 02 books; published 09 research papers; 04 book chapters; presented 06 seminars and attended 06 capacity building workshops. He is available in institutional website at <https://faculty.namrupcollege.edu.in/profile/data/23/jayanta-sonowal>; Facebook at <https://www.facebook.com/jayanta82>; LinkedIn at [jayanta-sonowal-36582141](https://www.linkedin.com/in/jayanta-sonowal-36582141); Blogger site at www.jayantas.blogspot.com, Orcid at 0000-0002-6260-4454 and Scopus at 57223668168 to share his professional and personal activities in social media.



Dr. Urmika Phangchopi, is currently working as Assistant Professor, Department of Botany, Namrup College, Dibrugarh, Assam, India. Apart from her professional carrier, she is interested in Plant Taxonomy and Ethnobotanical studies on different ethnic groups of Assam. So far she has edited 01 book; published 06 research papers, 03 book chapters, presented 02 seminars and attended 02 capacity building workshops. She is available in institutional website at <https://faculty.namrupcollege.edu.in/profile/data/38/urmika-phangchopi> and Facebook at <https://www.facebook.com/urmika.phangchopi> to share her professional and personal activities in social media.



Sajidur Rahman, is currently working as Assistant Professor, Department of Zoology, Namrup College, Dibrugarh, Assam. Apart from his professional carrier, he is interested in Toxicology, Cancer Biology, Limnology, Ethno- Zoology and Botany and Wildlife Biology. He is a Life member of "Assam Science Society". So far, he has edited 01 book; published 04 research papers, 06 book chapters, presented 13 seminars and attended 12 capacity building workshops. He is available in institutional website at <https://faculty.namrupcollege.edu.in/profile/data/43/sajidur-rahman> and Facebook at <https://www.facebook.com/sajidur.rahman.39> to share his professional and personal activities in social media.

