Journal

of

Biodiversity Conservation and Bioresource Management

J. biodivers. conserv. bioresour. manag.

Vol. 9(1)

This publication is indexed and abstracted in: Biological Abstracts, BIOSIS Previews and Zoological Record

Seventeenth Issue : June, 2023

Copyright© 2023 : Biodiversity Conservation Trust Foundation (BCTF).

All rights reserved. No part of the publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior

written permission of the Editor-in-Chief.

Published by : Biodiversity Conservation Trust Foundation (BCTF)

c/o- EBBL, Department of Zoology

University of Dhaka, Dhaka-1000, Bangladesh

Website: www. bctfgbl.org E-mail: bctfbd@gmail.com res.jbcbm@bctfgbl.org

ISSN : 2412-2416 (print)

2957-532X (online)

Cover design : Eftesum

Compose : Dr. Most. Sajeda Akand, Dr. Shahanaz Rahman, Kritee

Chowdhury

Post-review edit : Prof. Humayun Reza Khan, Prof. Dr. Md. Khalilur

Rahman, Prof. Dr. Md. Niamul Naser

Available at : EBBL, Department of Zoology, University of Dhaka

Dhaka-1000, Bangladesh

Price : BDT 1,000.00

: US \$ 50.00 : Euro 40.00

Printed in Bangladesh : Sarker Printers

15 Nilkhet Babupura, Katabon Dhal

Dhaka-1205, Bangladesh

E-mail: sjahansarker@gmail.com

BIODIVERSITY CONSERVATION TRUST FOUNDATION (BCTF)

Founder: Dr. M. A. Bashar

JBCBM Advisory Board

Prof. Dr. Abu Hassan Ahmad

University Sains Malaysia, Malaysia

Prof. Dr. A. R. Shakoori

University of the Punjab, Pakistan

Prof. Dr. Z. N. Tahmida Begum

University of Dhaka, Bangladesh

Prof. Dr. Samiran Chakrabarti

University of Kalyani, India

Prof. Dr. Musharraf Hossain Mian (Former VC)

Bangladesh Agricultural University, Bangladesh

Prof. Dr. Pramod Kumar Jha

Tribhuvan University, Nepal

Prof. Dr. Noor Jahan Sarker

University of Dhaka, Bangladesh

Prof. Dr. Yearul Kabir

University of Dhaka, Bangladesh

Dr. F. H. Ansarey, Managing Director and CEO

ACI Agribusiness, ACI Limited, Bangladesh

Prof. Dr. Sirajul Hoque

University of Dhaka, Bangladesh

Prof. Dr. Marc Jarry

IBEAS, University of PAU, France

Dr. Gerard Fabres

Rue Principale, 32160, Tasque, France

Prof. Dr. Sankar K. Ghosh (Former VC)

University of Kalyani, WB, India

Prof. Dr. Gulshan Ara Latifa

University of Dhaka, Bangladesh

Prof. Dr. Susanta Kumar Chakraborty

Vidyasagar University, India

Prof. Dr. A. T. A. Ahmed

University of Dhaka, Bangladesh

Prof. Dr. Shahadat Hossain Mondal

University of Rajshahi, Bangladesh

Prof. Dr. Ahmed Mustafa

Purdue University, Fort Wayne, USA

Prof. Dr. Mahfuzul Hoque

University of Dhaka, Bangladesh

Editorial Board

Prof. Dr. M. A. Bashar — Editor-in-Chief Prof. H. R. Khan — Executive Editor

Members

Prof. Dr. R. M. Shahjahan

Department of Zoology, University of Dhaka

Prof. Dr. Md. Khalilur Rahman

Department of Soil, Water and Environment

University of Dhaka

Prof. Dr. Md. Niamul Naser

Department of Zoology, University of Dhaka

Prof. Dr. M. Atiqur Rahman

Department of Botany, University of Chittagong

Prof. Dr. M. A. Bashar

Department of Botany, University of Dhaka

Prof. Dr. M. A. A. Akhand

Department of Genetic Engineering and

Biotechnology, University of Dhaka

Prof. Dr. M. Shamimul Alam

Department of Zoology, University of Dhaka

Dr. Most. Sajeda Akand, BCTF Representative (**Ex officio member**)

The Journal

In today's world, one of the most concerned issues to humans is the biodiversity protection. The management of biodiversity conservation is the greatest challenge for human civilization on the planet now. Unfortunately, the term is not well recognized yet to the people at its optimum use. Biodiversity is a complex concept referring to the variety of living entities on the planet in association with their surroundings. The conceptual abstract encompasses three basic components of biodiversity, namely ecosystem diversity, species diversity and genetic diversity. Biodiversity embraces proper distribution and sustainable management of bioresources, analysis of ecosystem services and assurance of conserving genetic resources. The components are inter-linked; biodiversity conservation needs conservation of the linkage through proper researches in the field. Through the integration with diverse disciplines, biodiversity carries priceless contributions in different horizons, such as poverty, food security, livestock, fisheries, forest, wildlife, transport sector, trade policy, ecotourism, human health etc. of our life. Immense implications of biodiversity in economic as well as environmental aspects are truly inevitable. When the precious values of biodiversity in various aspects often remain unjustified behind our vision and beyond our perception then bioresource key-element assessment might be performed by aiming to optimize and evaluate the efforts on researches delivered by the biodiversity researchers. An opportunity for sharing would be created through launching such a new journal to document the researches. It will promote the sharing of ideas on utilization, reliability and sustainable use of bioresources among the researchers through enhancing network and communication in a scholastic way. Focusing the aim, it stands necessary now to express towards the world about the necessity of biodiversity, value of biodiversity, protection and conservation of biodiversity. Our aim is to reach the goal by materializing the following tasks:

- To focus researches on biodiversity, conservation of biodiversity and management of bioresources at local as well as global levels;
- To accommodate outcomes of researches through collaboration and cooperation among the organizations of various disciplines at national and international levels;
- To select key words in the field of biodiversity and bioresource management following a technique by going through the journal; examples would be stated as waste-product management, colonization, butterfly colonization, synchronization of coincidences (temporal and spatial) of biotic factors, biotic epicentre, identification of bioresources, bioresource managements, etc.;
- To enhance quality of writings as well as inspiring researchers to deliver their optimum efforts towards researches in the field of biodiversity and bioresource management;
- To encourage the researchers in the above disciplines towards the management of human resources also in the society.

Considering the immense importance of biodiversity, we intended to launch a scientific research based new journal "Journal of Biodiversity Conservation and Bioresource Management" as the spokesman of biodiversity. This was aimed towards the documentation of researches on biodiversity and related fields. The Biodiversity Conservation Trust Foundation (BCTF) intends to take responsibility for bringing the journal to light and we hope that it will fulfill the aspiration of biodiversity researchers. It will commence an open access for implementing strategies to publicize the research findings to the people. This shall create and raise awareness among general mass to make them 'realized' the practicality of the roles of biodiversity and bioresources in their daily life.

JBCBM deals with all plants and animals considering them as bioresources from bimodeal (two ways of doing things) ideas. Firstly, plants and animals in different forms are the wealth and resources for the humans. Secondly, these are the vital tools to use as the sources to keep the environment sound on the planet. Technique-innovations on utilization of the bioresources should be the stand point of researches in the field of bioresources management. The JBCBM attempts to advance in the line. By June 2023, the JBCBM has published 17 issues in 9 volumes very successfully starting from 2015. We gratefully appreciate any kind of modifications, suggestions and support from different sources to enhance the standard and volumes of the JBCBM.

Journal

of

Biodiversity Conservation and Bioresource Management

J. biodivers. conserv. bioresour. manag.

Vol. 9(1), 2023

CONTENTS

Uddin, M. I. U., S. S. Gupta, M. N. Ali and M. K. Hossain - Natural regeneration potential of tree flora at Bangabandhu Sheikh Mujib Safari Park (BSMSP), Dulahazara, Cox's Bazar, Bangladesh	1
DOI: https://doi.org/10.3329/jbcbm.v9i1.66628 Aureo, W. A. and T. D. Reyes Jr. - Composition and community structure of plant species in a secondary growth forest in the Central Philippines DOI: https://doi.org/10.3329/jbcbm.v9i1.66629	13
Rifhat, R., S. R. I. Mitu, M. Syed and M. K. Rahman - Utilization of vermicompost and NPK fertilizers on the growth, yield, nutrient and protein content of mung bean (<i>Vigna radiata</i> L.) DOI: https://doi.org/10.3329/jbcbm.v9i1.66630	29
Bourouh, L., N. Souilah, M. Boulacel, H. Bendif, G. Chaib and T. Hazmoune - Study on the diversity of genotypic varieties of durum wheat (<i>Triticum durum</i> Desf.) in the sub-humid region of El Harrouch, Algeria DOI: https://doi.org/10.3329/jbcbm.v9i1.66631	41
Shamsi, S., S. Chakravorty and S. Hosen - Prevalence of seed-borne fungi associated with selected rice varieties of BRRI DOI: https://doi.org/10.3329/jbcbm.v9i1.66632	61
Islam, M. S. and M. K. Rahman - Evaluating soil fertility and plant nutrient status of lemon (<i>Citrus limon</i> L.) orchards in the north-eastern region of Bangladesh DOI: https://doi.org/10.3329/jbcbm.v9i1.66633	69
Khondker, M., M. A. H. Bhuiyan and M. A. Bashar - Towards an appraisal of biodiversity in Bangladesh DOI: https://doi.org/10.3329/jbcbm.v9i1.66634	79
Prity, N. N., M. Syed and M. K. Rahman - Performance and nutrient content of okra (<i>Abelmoschus esculentus</i> L. Moench) fruits as influenced by vermicompost, nitrogen and zinc grown in soil DOI: https://doi.org/10.3329/jbcbm.v9i1.66635	101
Akter, M. F., M. S. Hossain, S. M. M. Rahman, M. N. M. A. Banu and M. M. Akhtar - Insect diversity and pollination effect on buckwheat (<i>Fagopyrum esculentum</i>) yield DOI: https://doi.org/10.3329/jbcbm.v9i1.66636	109
Biswas, V. - A new species of jumping spider genus <i>Rhene</i> Thorell, 1869 (Araneae: Salticidae) from Bangladesh DOI: https://doi.org/10.3329/jbcbm.v9i1.66637	119