Environmental Biology and Phytogeography

Mrs. Rajbala

ENVIRONMENTAL BIOLOGY AND PHYTOGEOGRAPHY

Mrs. Rajbala
Associate Professor,
S.R.R.M. Government College,
Jhunjhunu, Rajasthan.

Kripa-Drishti Publications, Pune.

Book Title: **Environmental Biology and Phytogeography**

Authored By: **Mrs. Rajbala**

Price: ₹600

1st Edition

ISBN: **978-93-48091-19-2**

Published: **Jan 2025**

Publisher:

Kripa-Drishti Publications

A/ 503, Poorva Height, SNO 148/1A/1/1A,
Sus Road, Pashan- 411021, Pune, Maharashtra, India.
Mob: +91-8007068686
Email: editor@kdpublications.in
Web: https://www.kdpublications.in

PREFACE

"Environmental biology" and "ecology" are frequently used interchangeably. "It is the aim of this small book to outline those basic principles of environmental biology that are of interest, as well as of vital concern to all Academicians," Odum wrote in 1963, describing the scope of ecology. The basics of ecology and their connection to how humans affect natural ecosystems are covered in this book. comprises population dynamics, ecosystem structure and function, and the effects of humans on biodiversity, the air, water, and land. The study of plant distribution patterns over broad temporal and spatial scales, with an emphasis on the evolutionary processes that have shaped these patterns—such as the effects of environmental changes and dispersal mechanisms—is known as phytogeography.

Students can gain a sophisticated understanding of the most important environmental issues of our time by reading **Environmental Biology and Phytogeography**, a free and open-text book. In order to better understand the world around them and their influence on it, this book assists academics in understanding the scientific underpinnings of environmental topics. This book is the result of the cooperation of several writers and groups dedicated to giving students access to excellent and reasonably priced books.

Outcomes:

1. Synthesize ecological principles into an understanding of how the Earth functions.
2. Apply ecological principles to understand human impact on the environment.
3. Study related to ecosystem functioning, population and community ecology.
4. Describe possible causes and analyze potential solutions to current environmental issues.
5. Demonstrate skills necessary for life-long learning, critical examination, and personal decisions relative to environmental biology.
6. Identify various phytogeographical zones of India.
7. Understand the concept of endemism and enlist the hotspots of biodiversity of India.

Abbreviation

Acid Mine Drainage (AMD)

Aluminum (AL)

Ammonium (NH_4^+)

Ammonium Nitrate (NH_4NO_3)

Arbuscular Mycorrhizae (AM fungi)

Biocoupler (TM)

Biological Demand for Oxygen (BOD)

Biosphere Reserves (BR)

Calcium Carbonate ($CaCO_3$)

Carbon Dioxide (CO_2)

Carbonate ions (CO_3^{2-})

Catalase (CAT)

Compressed Natural Gas (CNG)

Construction and Demolition (C&D)

Dasholi Gram Swaraj Sangh (DGSS)

Dissolved Oxygen (DO)

Electrostatic Precipitators (ESP)

European Environment Agency (EEA)

Good Agricultural Practices (GAP)

Hydrogen (H^+)

Hydroxyl (OH^-)

International Coordinating Council (ICC)

International Union for Conservation of Nature (IUCN)

Liquefied Natural Gas (LNG)

Man, and the Biosphere (MAB)

Marker-Assisted Selection (MAS)

Municipal Solid Waste (MSW)

National Biosphere Reserve Program (NBRP)

Nitrites (NO_2^-)

Nitrogen Gas (N_2)

Nitrogen Oxides (HNO_3)

Oxygen (O_2)

Peroxi-Acetyl Nitrate (PAN)

Peroxidase (POD)

Phosphate ion (PO_4^{3-})

Plant Preservative Mixture (PPM)

Pollution Under Control (PUC)

Quantitative Trait Locus (QTL)

Sound Level Meter (SLM)

Sound Pressure Level (SPL)

Sulfates (SO_4^{2-})

Sulfur Dioxide (SO_2)

Sulfuric Acid (H_2SO_4)

Superoxide Dismutase (SOD)

Suspended Participate Matter (SPM)

Tetraethyl Lead (TEL)

The National Park Service (NPS)

The Net Primary Production (NPP)

Ultraviolet. (UV)

United Nations Educational, Scientific, and Cultural Organization (UNESCO)

United Nations Environment Programme (UNEP)

Volatile Organic Compounds (VOCs)

Water (H_2O)

When Two Heterozygous Plants (WwYy)

White Flowers (W)

World Health Organization (WHO)

Yellow Seeds (Y)

INDEX

List of Figures

List of Tables

ABOUT THE AUTHOR

Mrs. Rajbala

She is currently working as an Associate Professor at S.R.R.M. Government College, Jhunjhunu, Rajasthan. She has completed M.Sc. from MDS University, Ajmer, Rajasthan and qualified SLET conducted by RPSC. She has 22 years of teaching experience at UG and PG level. She has published 15 research papers in various reputed national and international journals and also published 02 book chapters. She has presented research papers in more than 30 national and international seminars and conferences and participated in various FDPS and workshops. She is currently working as a member of BOS in PDUSU, Sikar, Rajasthan.

KRIPA DRISHTI PUBLICATIONS

Price: ₹600

Kripa-Drishti Publications
A-503 Poorva Heights, Pashan-Sus Road, Near Sai Chowk,
Pune – 411021, Maharashtra, India.
Mob: +91 8007068686
Email: editor@kdpublications.in
Web: https://www.kdpublications.in

ISBN: 978-93-48091-19-2

9 789348 091192